DAILY METAL REPORTER
MONTHLY SUPPLEMENT

METALS

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In This Issue

ONE-THIRD OF U. S. COPPER COST 25c OR MORE TO PRODUCE IN '56
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Chairman of Board, The Anaconda Company

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By L. H. TARRING
London, England

DOMESTIC METAL MARKET REVIEW
U. S. METAL IMPORT DUTIES
WASHINGTON REPORT
METAL STATISTICS

APRIL
1957

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TWO LINE *Editorials*

Maybe President Eisenhower would be more alarmed over the prospect of "a depression that will curl your hair" if he had more hair to curl.

* * *

The Standard Oil Company announces the sale of its candle manufacturing plant in Indiana. Apparent they are at last convinced that the electric light is here to stay.

* * *

Recent developments seem to have aroused some question as to whose welfare has been most served by the teamster unions' welfare funds.

* * *

"Art lovers" in New York paid $50 for pictures painted by a chimpanzee. Apparently the chimp made monkeys of the buyers.

* * *

Twelve months from now, of course, the appearance of the new 1958 model automobiles will be making you ashamed of driving that obsolete, shabby old 1957 model.

* * *

An orange, says a research chemist, "contains eleven amino acids, seventeen carotenoid pigments and eleven flavonoids." Fortunately it also contains some mighty good-tasting juice.

* * *

A headline says "Basketball Star Presented With New Car." But how could a basketball star get into one of these new automobiles?

BUSINESS IN MOTION

To our Colleagues in American Business . . .

With the demand for heavier electrical loads constantly on the increase, the demand for electrical equipment of greater capacities also continues to grow. One of those items is circuit breakers.

As a result, design engineers are constantly faced with the problem of not only making breakers of greater load-carrying capacity, but of keeping down their weight and physical size.

In wrestling with just such a problem the design engineers of a leading maker of circuit breakers visualized the extruded copper shape (Fig. "A") as being in two pieces. It was thought that a single shape of that size could not be made satisfactorily. At this point the engineers got together with Revere's T.A. (Technical Advisory) Service. The result was the one-piece copper extrusion shown. Not only was assembly cost reduced but machining time also was saved.

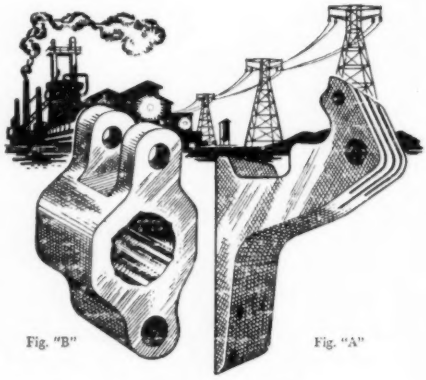

Fig. "B" Fig. "A"

Before arriving at the selection of the Revere Aluminum Extrusion (Fig. "B"), also used in the same circuit breaker, various metals and their properties were studied. First, an aluminum casting was thought to be the answer. Then it was found that an extrusion would weigh less and have a higher strength ratio than a casting. So, by using an aluminum extrusion, both space and weight were saved. Here is an example of where a material costing a little more per pound saved money in the end.

In all, Revere supplied 5 copper and 2 aluminum extrusions, each designed to fit specific requirements. Aluminum was used where strength and weight were the prime consideration, while copper was employed for current-carrying members. The use of extruded shapes saved machining time and costs.

Here you have still another example of Revere supplying the right metal to do the best job with the greatest economy . . . be it aluminum, copper or any one of their alloys. Not only the copper and brass industry but practically every industry you can name is able to cite similar instances. So we suggest that no matter what your suppliers ship you, it would be a good idea to take them into your confidence and see if you cannot make a better product at lower costs by specifying exactly the *right* materials.

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Washington Report

April 4, 1957.

TO stockpile or not to stockpile was the question most frequently discussed in Washington and metal circles during the month in review. The House voted to eliminate all new money for the stockpiling program in the fiscal year starting July 1. The Administration had requested $130,000,000 for buying strategic and critical materials for the Government reserve in fiscal 1958 but the House Appropriations Committee only recommended $19,000,000. And on March 20 the House chopped off even the $19,000,000 which had been proposed be used by the General Services Administration to make stockpile purchases. When it slashed the funds sought for GSA stockpile buying, the House committee emphasized the large amounts of material that are already in the national reserve, the quantities on order, and the unspent funds from previous appropriations.

The House action in deleting even the $19,000,000 from the budget, does not mean, according to informed quarters, that the GSA will have no funds with which to continue its stockpile purchases of lead and zinc. As reported by the House Appropriations Committee, the Government buying agency still has $145,000,000 in unexpended funds from previous appropriations and these may be sufficient to continue the stockpiling program, although on a greatly reduced basis. It should be borne in mind, also, that the Senate has not as yet concurred in the House action so that when the budget is finally adopted, some of the appropriations for stockpile purchases may be restored.

GSA Purchases

Meanwhile, the GSA continued to make its usual monthly request for producers to make offers of domestically-produced lead and zinc to the stockpile. Bids were submitted to GSA on March 25, with both metals to be delivered by May 15. It was indicated that the GSA did not take up all the offerings of lead and zinc made to it for delivery to the stockpile.

Zinc Barter Deals

Informed quarters here were expecting the Office of Defense Mobilization to shortly issue a directive authorizing the Commodity Credit Corp. to resume bartering Government-owned surplus farm products for zinc of foreign origin. For about two weeks previous to April 5, the CCC had not made any barter deals waiting for a new directive from ODM. The agency was reported to have been snowed under with paper work and in need of a breathing spell.

The last time previously that the CCC withdrew from the barter market for zinc was at the end of December, because at that time the ODM had established a time limit for the barter deals. When the CCC reentered the market to continue its barter transactions early this year, it was understood that the ODM had not only placed a time limit but also a quantity limit on such CCC acquisitions.

February Barter Deals

The U. S. Department of Agriculture reported that barter contracts for supplemental-type strategic materials signed in February had a total value of $3,400,000, compared with $36,800,000 for January, $18,100,000 for February a year ago, and $104,900,000 for the full fiscal year 1956.

Supplemental-type strategic materials contracted for in February included: lead, $2,500,000; zinc, $600,000, and chrome metal, $300,000.

Industry's Viewpoints

While domestic stockpiling for lead and zinc appears to be near its tonnage objectives (200,000 tons for lead and 300,000 tons for zinc) and may terminate, the barter program under which U. S. perishable agricultural surpluses are traded for non-perishable strategic materials of foreign origin should continue to be a major factor in keeping the lead and zinc markets in balance, according to Clinton H. Crane, chairman, and Andrew Fletcher, president, St. Joseph Lead Company.

These views were echoed by Otto Herres, chairman, National Lead and Zinc Committee. Mr. Herres said, "An end to stockpile purchases, in the absence of the long-promised Government minerals program, forebodes a drastic drop in metal prices with deplorable consequences to domestic lead, zinc, and possibly copper miners, in particular."

The chairman of the lead and zinc group said that "experience is proving that stockpiling alone, whether for defense or through barter deals, will not provide a long-range minerals policy that will protect domestic mining from the weakening impact of excess tonnages of foreign metals flowing to the markets of this country." The logical answer, according to Mr. Herres, would appear to be restrictions on excess imports but only when and to the extent that they are offered at prices which will destroy the U. S. mining industry. This remedy, he added, would add no burden to the already overloaded U. S. taxpayer and instead afford a modest revenue to the U. S. Treasury in duties collected on such excess imports.

Barter Plan With Reds

Concerning the barter program, the Senate has approved a bill which would permit the Administration to trade surplus U. S. farm products for strategic materials from Iron Curtain countries. The bill has been sent to the House for action there. The authority for the Administration to make such deals with the Reds was contained in overall legislation to increase from $3,000,000,000 to $4,000,000,000 the amount of farm surpluses which may be sold abroad for foreign currencies.

DPA Copper Purchases

About 4,000 short tons per month of U. S.-produced copper may be delivered to Government account under provisions of the Defense Production Act if the domestic price for the red metal drops below 29.00c a pound, it was estimated by the Copper Division of the Business and Defense Services Division. The BDSA added that if the price should drop below 27.00c a pound, about 6,000 tons more may be delivered to Government account, or a total of 10,000 tons per month.

Discussing the copper market position, BDSA said: "It is anticipated that refined copper consumption demand in the first quarter 1957 would be about the same as in the fourth quarter 1956, but it is estimated that consumption in the second quarter 1957 will increase moderately over the first quarter rate. The agency said the total supply of refined copper in the U. S. in 1956 (production plus imports) was 1,881,000 short tons and was the highest on record. It added that "a moderate surplus of refined copper developed in the fourth quarter of 1956 mainly because of lower-than-anticipated rates of automobile production."

Urges Funds for Tungsten

In a statement made to the Senate Subcommittee on Interior Appropriations, Charles H. Segerstrom, Jr., president of the Nevada-Massachusetts Co., urged that funds be provided to continue Government purchases of tungsten.

Mr. Segerstrom said, "without the appropriation necessary to keep the strategic minerals purchase program in operation not only will an entire industry be wiped out but at the time a source of tax revenue of at least $8,000,000 to $11,000,000 derived annually from domestic tungsten mining operations will be lost."

Nickel Shortage

The Business and Defense Services Administration anticipates a continuing shortage in the nickel supply for several years. This was revealed April 3 in the text of hearings re-

(Continued on Page 16)

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22.6% of Output, Indispensible to Our Economy, Cost 29c or More But Current Prices Don't Allow Sufficient Profit Margin to Justify Risks

By ROY H. GLOVER, Chairman of the Board, The Anaconda Company

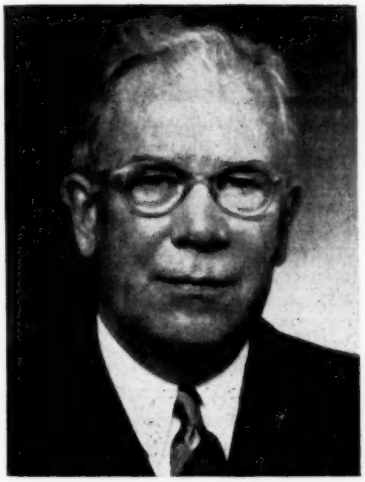
PROBABLY one of the questions most frequently asked of one engaged in the production of copper is "Where is the price going?" Consumers and security holders are equally interested in a rising or a falling market. Obviously one would need the mystic qualities of a fortune teller to give a categorical answer and then the answer would be worth just about as much as that of the fortune teller.

There are, however, certain fundamental principles that are frequently not taken into consideration even by people who are most willing to express opinions in this regard. Fundamentally, of course, the law of supply and demand figures in the price of this commodity as in that of all other commodities in a free and competitive economy.

The law of supply and demand in the copper industry is also affected by some fundamental conditions which I shall not attempt briefly to discuss.

Steel Needs Copper

It was with the advent and development of the steel age that copper came into its greatest use. Without copper, steel is an inert mass. Copper forms the nervous system through which energy flows, transforming steel into the greatest servant known to mankind. Even though we currently hear that we are approaching the atomic age, the fact is that it will still remain the steel age. Atomic energy for peaceful purposes in industry will merely replace or supplement other types of fuel in generating that energy which moves steel from an inert mass into a servant of mankind. In accomplishing this process, there has been used in the United States since 1919, 1.412 pounds of copper for each hundred pounds of steel. This ratio has held fairly constant to the present time with certain fluctuations



ROY H. GLOVER

which I shall hereafter discuss. Therefore, probably one can determine the future of the demand for copper reasonably by considering the projected increase in steel manufacturing capacity in the world. This increase in the United States to 1960 is currently estimated at 13.3 per cent; in the free world at 23.3 per cent; in the iron curtain countries at 48.8 per cent; and in the world as a whole by 1960 the increase is estimated at 29 per cent. On the other hand, the estimated increase in world copper mine and plant production capacity during this same period is 14.5 per cent.

Use Increases During Wars

Naturally the proportionate use of copper increases in war periods and therefore it becomes interesting to consider to what extent war activities have affected this ratio. As before stated, the ratio from 1919 to 1956 inclusive is 1.412 pounds of copper to each hundred pounds of steel; 1919 to 1940 inclusive (nonwar years) 1.383; 1919 to 1940 and 1946 to 1956 1.398; the first six months of 1956 1.315; July and August of this year ('56) represent the steel strike and therefore are not typical. From September to December inclusive, however, the average is 1.008; and for January and February of 1957 the average is 1.055.

Copper Inventories

It is obvious from the foregoing that during the past six months the deliveries of copper are approximately 25 per cent under the historic steel ratio and under the ratio of each of the six months immediately prior to the steel strike. It is our information that at the beginning of this period approximately three months of copper inventories were in the hands of the fabricators. Shortly before this time a fairly constant program was entered into in certain quarters to reduce the then existing price of copper, upon the mystical ground that it was "too high." The campaign reached such proportions that consumers began to expect lower prices with the resultant resort to inventories. It is fairly evident that they have looked to inventories for approximately 25 per cent of their monthly requirements since last September. Such a policy theoretically could be continued for a year before inventories in the hands of consumers would be completely exhausted. Half of that period has now passed and our information is that in many places inventories are becoming dangerously low. This situation is reflected in an article in the *Daily Metal Reporter* of March 19th, as follows:

"The limited tonnages of copper that consumers are buying are not indicative of the amount that is being actually consumed, according to well informed trade opinion. From a long range point of view, this is a favorable development since if there should be a pickup in demand, consumers would be

Address before meeting of Boston Security Analysts Society, Boston, Mass., March 25, 1957.

compelled to enter the market for larger quantities than they have been taking."

Another and of course most important element in the applying of the law of supply and demand is the ability of producers to bring in and market copper from given properties at a reasonable profit. It must be borne in mind that per pound costs in underground copper mining operations have increased since the year 1934 by more than 400 per cent. Many statements are made in good faith but without adequate information. In this category I would place a statement recently made by an African producer to the effect that the African costs of around 19c per pound were higher than costs in the United States which he estimated to be approximately 18c per pound.

Production Costs

A similar statement was recently made "that approximately 90 per cent of U. S. copper output can be produced profitably at or less than 25c per pound."

Of course it is difficult to accurately estimate the costs of the other fellow. However, we have had a large experience in the mining, smelting and refining of copper in the United States and on the basis of that experience and of our knowledge of individual operations, we have undertaken an estimate of the pound costs of each individual property operating in the United States. There is probably no other commodity in which there is such a wide variation between the low cost and high cost of production. Nevertheless, each is equally important to the economy of the United States and of the world.

Cost Analysis

This analysis discloses that on the basis of 1956 production, 150,965 tons or 13.9 per cent of the domestic production had costs of 30c per pound and higher; 245,484 tons or 22.6 per cent had costs of 29c per pound and higher; and 359,451 tons or 33.1 per cent of the 1956 production had costs of 25c per pound and higher. The production with costs at 29c per pound and higher and representing 22.6 per cent of our domestic production is indispensable to our economy. Nevertheless, on the basis of present prices there is not a sufficient margin of profit in this production to justify mining risks. Furthermore, the costs that I have quoted include only normal depreciation and nothing for depletion. Unless we head into a period of greatly slackened industrial activity, the inevitable result of the relationship between present costs and prices will be to dry up production at the high cost properties until there is again a period of scarcity with the resulting increased prices. Unfortunately production in mines cannot be turned on and off like a water faucet. When production is once suspended, it requires a substantial period of time to bring it back.

Production Curtailed

We have already ceased copper production in our Belmont Mine at Butte, representing approximately 600 tons per month, and are in process of suspending production at our Mountain Consolidated Mine which is currently producing 1,400 tons per month. This action is taken not by reason of depletion of ore reserves; on the contrary, the available reserves are larger than at any time in the long history of those two great properties. We have concluded, however, that we can more profitably employ available manpower in development work for the future when copper prices will again be attractive for such high cost properties than to maintain production on present price levels.

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DEMAND FOR ALUMINUM EXPECTED TO DOUBLE WITHIN DECADE; '57 SHIPMENTS LIKELY TO RISE 5 TO 10%

Existing and Planned Capacity in Free World Outside U. S. Indicate An Expansion by 1960 Sufficient to Raise Annual Use 50% Above 1955 Level

By R. L. SHENEMAN, Kaiser Aluminum & Chemical Sales, Inc.

THE aluminum industry in 1956 completed another record year of production and shipments, but it was also a year in which some conflicting trends developed. Upon close analysis, the trends continue to confirm the industry's optimism about the future. During the year domestic primary producers added about 333 million pounds of annual capacity to their facilities and produced 7 per cent more primary metal than in 1955. With the exception of strike-induced losses in the third quarter, facilities were operated at near capacity levels throughout the year. In contrast to rising supplies, however, shipments to consumers, after a record first quarter, traced a declining trend in each succeeding quarter of the year. As a result, the available supply of metal for commercial use was steadily increased and further enhanced by the Government's decision to issue no stockpile calls during the year.

Shipments Up 3% in 1956

Despite the declining trend in aluminum shipments during the last three calendar quarters of 1956, the total for the year was nevertheless 3 per cent above 1955. This growth rate is considerably short of the historical average rate of roughly 10 per cent per year. But it must be remembered that aluminum shipments in 1955 had increased 33 per cent over the previous year. The reasons for the lower rate of increase from 1955 to 1956 are not hard to find. Although total construction activity in the country was rising last year, the trend in the residential sector, which is the leading market for aluminum, was steadily downward. Similarly, in the important area of consumer durable goods, sales also turned downward; first in the automobile industry and later in other categories. Thus, a 3 per cent gain in the face of these unfavorable trends reflects an underlying growth of new applications which more than offset declines in some of aluminum's principal markets. We feel that this underlying strength in demand supports the forecast that the aluminum industry will continue to grow.

The effect on marketing activity of the increasingly favorable supply situation was to improve the industry's service to its customers. As the year progressed, the customers' procurement time required for aluminum mill shapes declined appreciably. Orders for practically all types of aluminum products can now be placed in production within a few weeks after they are received.

Confidence in the growth of the industry has further stimulated the entrance of new firms in increasing numbers and has spurred the expansion on the part of established firms fabricating aluminum as each has attempted to participate in new and growing markets to the fullest extent. The natural result has been an emphasis on service to the customer which increasingly will tend to mark the industry's sales policies. The aluminum industry is giving evidence each day of its increasing awareness of operating, for all practical purposes, in a permanent buyers' market.

1957 Shipments Seen Rising

Concerning the immediate future, we expect aluminum shipments to rise by 5 to 10 per cent during 1957.

It has been estimated that as much as $6-billion per year is being spent for industrial research and development. The stream of new products and processes that result from this research provide new opportunities for investment in aluminum, as research and development activity in our industry is vigorous. New applications for aluminum are coming into being from previous research, while large scale increasing research activity going on today will make a greater volume of new applications feasible in the future.

In assessing the future prospects for the demand and supply of aluminum, it is necessary to distinguish between the market in the United States and the free world market. Statements of existing and planned capacity in the free world outside of the United States indicate an expansion by 1960 sufficient to raise annual consumption to a point about 50 per cent above the level in 1955. A possible insufficiency of supply is pointed up in these plans by the fact that consumption of primary aluminum doubled in the free world outside our country from 1950 to 1955. In the period from 1950 to 1955, when the consumption of aluminum in the United States was rising about 65 per cent in mill shapes and castings, consumption in free Europe was more than doubling; and in Asia, Australia and South America the rate of growth was even more rapid. Whether or not such growth rates will continue abroad is, of course, difficult to say; but the maintenance of anything like the high rates of increase in the consumption of alumnium in these free world countries would of course lead to a change in the current supply-demand situation abroad. The chances of vigorous growth in the usage of aluminum in the free world appear quite good, and it must be remembered that the historical growth which took place there in the last five years was occurring in many countries whose economies were relatively less stimulated by the Korean War than was the case with our own country.

Free World Demand

Many of the free world countries with the exception of Canada, of course, consume more aluminum than they produce even today. The possibility of demands for aluminum in the free world pressing against the available supply from time to time is to be contrasted with the best estimates of supply and demand through the next several years in the United States. The total supply of aluminum in this country has been estimated by the Aluminum and Magnesium Division of the Department of Commerce to attain a level of 6.9 billion pounds by 1960. This is to be compared with a

The address by the author, who is manager of his company's business analysis and market planning department, was delivered at a meeting of the Newcastle (Pa.) Chapter, National Purchasing Agents' Association, March 29, 1957.

range of industry market forecasts ranging from 6 billion to 6.6 billion pounds during that year.

Of course, there is another side to this story — a much brighter side, we think. It is entirely normal and, in fact, desirable that aluminum should be in adequate supply at all times. The purpose of all longe-range aluminum forecasts is to estimate future demand in order that plants may be built and aluminum supplied to meet these demands. We in Kaiser Aluminum consider that we have a continuing responsibility to our customers to improve and revise our forecasts to keep abreast of aluminum consumption in order that we may, in turn, revise our expansion planning and keep aluminum in ample supply.

Greater Utilization

The fact that over the next few years the suplpy of our metal in this country will be relatively ample is giving aluminum users engaged in product research additional impetus to design their products to utilize greater quantities of aluminum. It is true that technology sets the limits within which one metal or material can replace another, and it is equally true that all metals in general share in the advance of technology. However, we believe aluminum will be favored increasingly in the future.

The same reasons of lasting beauty, low cost and freedom from maintenance which have caused many to prefer aluminum windows, storm windows and other glass framing will continue the usage of aluminum to an even greater extent in these same applications. Aluminum windows today perhaps make up no more than 25 to 30 per cent of the total material consumed in this market.

The same qualities of pleasing appearance, low cost and resistance to corrosion which are now making aluminum more popular in automobile trim applications will continue to encourage its use in all fields where lustrous metallic finish is desired. The basic property of aluminum which permits its permanent coloring of gold and other hues gives it additional usefulness to product planners and designers — a usefulness which has not yet been fully exploited.

Aluminum's properties of higher electrical conductivity per dollar invested have only begun to be exploited in many parts of the electrical industry, an industry which historically doubles its sales every 10 years and which many feel will grow more rapidly in future years.

These same properties of lightness in weight and high strength which have made it popular in the transportation field promise to make it popular in the transportation container field. As you know, these transportation containers facilitate the movement of goods over freight breaking points without the necessity of unloading and reloading.

The property of aluminum which permits it to be cast in intricate form with little or no machining required is making the metal increasingly popular in the automotive field.

Aluminum's non-sparking characterstics, as well as its light weight and high strength, are making it increasingly popular in the highway petroleum transport field.

In an attempt to quantify or measure rates of growth of aluminum based upon customers' exploitation of these basic properties of aluminum in their product planning and product design, the Market Research group of Kaiser Aluminum undertook an extensive survey recently. On the basis of this survey we expect the demand for aluminum will more than double over a period of the next decade to a level of about 8.4 billion pounds by 1965. It is interesting to note that a forecaster has an impossible task in the area of new products and processes which have not yet been conceived, but which will be important factors in the market by that time. Accordingly, all long-range forecasts tend to be understated, and it is our plan to have our Market Research group continue their forecasting work periodically. It is our belief that these long-range forecasts will be revised upward several times in a 10-year period.

Shifting in Markets

As one might expect, there will be some shifting in the relative importance of our various markets. We expect the building industry to continue to be the leading market for aluminum. Direct defense applications for the metal will steadily decline in relative importance in the years that lie ahead, assuming that wars are averted. The transportation industry, on the other hand, is expected to grow very rapidly and possibly rival even the building industry as aluminum's most important market. Electrical applications may increase the most rapidly of all of our growth markets, but it is not expected that electrical applications will become more important that either building or transportation during the next 10 years.

Among the various aluminum mill shapes we expect the demand for extruded products to continue to grow very rapidly as aluminum extrusions become a more and more universal product in the building industry. As mentioned earlier, potentials in this field as yet unconverted from other materials are very large.

Die castings in the transportation field are expected to show a very rapid rate of increase. The American Die Casting Institute has predicted that the amount of aluminum used in their industry will double in the 5-year period between 1955 and 1960 — a considerably faster rate of growth than that being experienced by the aluminum industry as a whole.

Continuous Welding Method

It is expected that the more economical process of producing aluminum tubing by the continuous welding method will result in new markets for this product. Sprinkler irrigation systems manufacturers and furniture manufacturers have already made sizable conversions to this product. It is also felt that food processors will continue to exploit the characteristics of foil, both as an ideal low-cost container and a spectacular package design medium to promote their new food products in the years ahead.

Wire and cable products for electrical applications will, of course, make very important gains as the electrical industry continues to convert to aluminum.

More Aluminum Mills

As you know, the number of firms producing basic aluminum mill shapes has grown dramatically in recent years. These firms are, of course, the customers of the primary producer. Their ability to compete successfully with the integrated producer has been due in large part to their unique adaptability in meeting the needs of customers within a regional area. From these regional markets in which aluminum users and fabricators cooperate, have become developments of new products and techniques of marketing that have stimulated the growth of the entire aluminum industry. On the other hand, the research and development programs of companies organized on a national scale have provided new opportunities in all markets. The growth among producers of aluminum extrusions has, of course, been the most spectacular growth story in our industry in recent years. There are probably in

(Continued on Page 16)

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U. K. MARKET OBSERVERS SEE REDUCTION IN COPPER OUTPUT NECESSARY TO KEEP PRICES AT 30-32c LB.

Tin Stronger as International Council Boosts Buffer Stock 'Floor'; U. S. Barter Program Continues to Support Lead and Zinc Industries

By L. H. TARRING
London, England

ON balance copper prices have changed very little over the past month, but in the meantime there have been some variations in market sentiment. Broadly speaking, it is obvious that there is a great deal of mind-searching going on both on the part of producers and consumers as to whether the time has come when copper prices can settle down after the remarkably wide movements they have undergone in recent years.

That producers generally are not anxious to see prices fall below about 30 to 32 cents per pound is pretty obvious, but what is not quite so obvious is whether inexorable economic facts will enable their wishes to be fulfilled without some sacrifices being made in the shape of materially reduced production.

Much interest has been shown by market observers here on various comments on costs of production for copper in some of the main sources of supply, but although some of the public statements may not be as far apart as at first sight seems to be the case, authoritative information on the subject is still rather lacking. In consequence, buyers of copper are not unnaturally inclined ot follow a cautious policy until they get more evidence than is at present available of a reasonable balance being established between supply and demand.

Labor Difficulties

In the U. K., the past month has been a rather sorry one in the sense that it saw the outbreak of a serious strike of shipbuilding operatives, and the start of "snowball" strikes in the engineering industries which, fortunately, did not attain their maximum effect before the disputing parties came to, at any rate, interim terms of agreement, but only at the cost of a further increase in wages. A settlement of the shipbuilding trouble was reached on much the same sort of basis. Courts of Enquiry are now to investigate the wage position in both industries, and also it is hoped the question of restrictive practices. Obviously, however, even a temporary stoppage in such important industries as these was bound to have some effect on consumption of copper, even though it eventually proved to have been a temporary slowing down which could be made good later.

We are now on the eve of a Budget which is attracting in anticipation a great deal of interest to see what policy the Chancellor of the Exchequer will pursue other than the progressive cuts in defense expenditure which have already been announced in the Government White Paper on that subject.

Common Pricing Policy

Meanwhile, on the subject of copper, there have been further rather oblique references to the possibility of the two big Rhodesian producing groups further discussing the question of a common pricing policy for their U. K. consumers, but to date there is no hard news on the subject. This question has now been under consideration for quite a few months, and is of considerable importance to the copper industry in this country, at any rate since, apart from the problems which arise from a dual pricing system for sterling area metal, if agreement should be reached between two big groups and their main British customers, the possible effect of such a development on the price leadership here of the London Metal Exchange would need to be very carefully examined.

After prices had definitely fallen below the £240 level on the open market here, and confidence seemed to be definitely waning again, a strike in Chile followed by one at Mufulira and other stoppages at Kansanshi and Chibuluma in Northern Rhodesia, helped the tone of the market appreciably for a while, and this could be hardly more than an ephemeral influence since it does not appear as if any widespread curtailment of output is in prospect.

On both sides of the Atlantic consumers would appear to have been running down their stocks to a greater or lesser extent for some months past, and once this process has been carried as far as it can be, it may be possible to get a better idea of the real relationship between production and consumption.

Meanwhile, it looks as if some uncertainty may continue to overhang the market until present dilemmas are resolved.

World Tin Meeting

Other considerations in the tin market have been overshadowed in recent weeks by the meeting in London on March 20 to 22 of the International Tin Council at which price ranges in the International Tin Agreement were revised. It was known, of course, that producers were seeking an upward revision in the price limits in the Agreement, but until the event there was considerable uncertainty as to what the actual outcome would be.

By raising the floor price no less than £90 a ton from £640 to £730, but leaving the ceiling price unchanged at £880, this decision reduced each of the three price tiers from £80 to £50, but obviously strengthened the position of the open market by bring-

RST PRICE CHANGES

Changes in the Rhodesian Selection Trust's fixed electrolytic copper price, since it was established on May 9, 1955, and applicable to the RST's regular customers in the U. K. follow:

Date of Change	Pounds Sterling (Long Ton)	Equivalent in Cents Per Pound
1955		
May 9	280	35.00
August 2	325	40.625
September 5	360	45.00
1956		
February 27	385	48.125
April 30	350	43.75
May 28	320	40.00
June 18	300	37.50
July 2	275	34.375
August 1	300	37.50
October 15	280	35.00
October 24	265	33.125
November 12	280	35.00
December 17	270	33.75
1957		
February 1	250	31.25
February 19	240	30.00

U. K. COPPER STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports an increase in stocks at blister copper in the U. K. at the end of January 1957 at 17,794 tons compared with 14,096 tons at the end of December 1956. Stocks of refined copper, however, were lower at 41,409 tons (45,518 tons). Imports of blister into the U. K. during January were 13,599 tons and 29,500 tons of refined; production was 10,293 tons of primary refined and 7,710 tons of secondary. Consumption, full details of which appear in the table below, was 61,588 tons.

	Jan. 1957	Jan. 1956
Unalloyed Copper Products		
Wire (1)	27,113	22,791
Rods, Bars & Sections	1,651	1,723
Sheet, Strip & Plate	5,682	4,967
Tubes	4,918	4,436
Castings and Miscellaneous	650	650
Alloyed Copper Products		
Wire	1,600	1,678
Rods, Bars & Sections	10,452	12,802
Sheet, Strip & Plate	8,840	11,081
Tubes	1,874	2,063
Castings & Miscellaneous	7,055	6,733
Copper Sulphate	4,619	4,627
Total all products	74,454	73,551
Copper Content of Output	61,588	59,028
Consumption of Refined Copper (2)	51,118	45,676
Consumption of Copper & Alloy Scrap (3) (copper content)	10,470	13,352

Notes: (1) Consumption of H. C. Copper and Cadmium Copper Wire Rods for Wire and production of Wire Rods for Export.

(2) Virgin and Secondary Refined Copper.

(3) Consumption of copper in scrap is obtained by the difference between copper content of output and consumption of refined copper, and should be considered over a period since monthly figures of scrap consumption are affected by variations in the amount of work in progress.

AVERAGE BRITISH PRICES FOR COPPER, TIN, LEAD, ZINC

(Per Long Ton)

Mean of Bid and Asked Cash Quotation at Close of Morning Session on London Metal Exchange

	COPPER			TIN			LEAD		ZINC	
	Cash	3 Months	Settlement	Cash	3 Months	Settlement	Current Month	3rd Following	Current Month	3rd Following
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
1954 Averages	248 17 11	239 17 7	249 0 11	719 8 11	709 17 7	720 6 7	98 8 12	94 7 4	78 5 4	77 16 11
1955 Averages	351 14 11	341 0 3	352 5 6	740 2 12	736 12 11	740 12 8	105 17 3	105 9 6	90 13 4	89 12 3
1956 Averages	328 14 5	324 13 1	329 1 8	787 14 9	774 7 7	788 13 3	116 6 5	114 8 9	97 14 3	95 3 7
1957										
January	265 17 11	264 14 4	266 3 2	789 3 2	771 10 5	789 16 4	116 5 1	114 10 8	103 5 1	98 13 8
February	245 11 2	244 2 0	245 16 3	770 16 9	752 9 6	771 8 6	113 3 0	112 6 11	99 8 11	96 17 0
March	239 10 11	239 2 9	239 14 6	770 14 6	756 8 7	771 7 2	113 2 1	112 6 11	96 12 3	94 15 9

ing the floor price in the Agreement very close to the then ruling tin market price. The immediate effect of this was to strengthen prices on the London tin market by upwards of £20 but this proved to be rather short-lived, and although quotations are now just below the figure at which the Buffer Stock Manager may, at his discretion, buy tin on the open market, there has so far been little evidence that any such purchases have actually been made.

It is important, of course, to bear in mind that below £780 the Buffer Stock may buy tin, but at below £730 (the new floor price) it must buy tin. It had been thought that an early opportunity would be taken by the Buffer Stock to translate some of its large cash resources into metal, but a close study of the terms of the Agreement show that the Buffer Stock Manager may begin to buy tin below £780 per ton at the marekt price "if he considers it necessary to prevent the market price from falling too steeply."

As at the moment, the anticipated surplus of production has not yet begun to have any very major effect on the market, this may mean that Buffer Stock support will be withheld until or unless prices are more affected by the expected additional supplies than has so far been the case. Nevertheless, there can be no question that the sharp advance in the floor price of the Agreement will tend to support tin prices at a rather higher level than most people had anticipated.

Lead Steady

Hardly any events of decisive importance have occurred in connection with lead in recent weeks, and as a result, the market has had a steady and rather uninteresting appearance. Prices on the London market have moved within very narrow limits, and supply and demand seem to have been in pretty close balance despite the threats to consumption from the strikes in the shipbuilding and engineering industries during March.

Actually, as has been the case for the last year or two, lead consumption remains notably steady, and the fact that releases are now being made from the British Government stockpile month by month has not so far upset the balance of supplies. This is not of itself surprising as it had been fairly generally anticipated that while these releases from Government stocks were in progress, shipments of metal to this country from the main supplying points would probably be correspondingly curtailed, particularly if the opportunity persists of selling metal to the United States on a barter basis.

It is this latter point which remains the dominating factor as far as prices are concerned, and there is naturally the greatest possible interest continuing in the American Government's future policy with regard to supporting lead and zinc prices both in the domestic and international markets. Obviously, therefore, if and when the U. S. Government announces a new mineral policy, it will be studied here with the closest possible interest, particularly as regards future plans for acquiring foreign metal.

Spot Zinc Scarce

The importance to the zinc market on this side of the Atlantic of American Government policy with regard to the acquisition of foreign metal by barter transactions has been clearly demonstrated in recent weeks. In the early part of March in the absence of American Government support, prices on the London market showed an easier tendency, and the supply situation improved, with the result that the backwardation practically disappeared temporarily. Later when it is understood further quantities of metal were disposed of under the barter arrangements, the stringency in spot supplies reappeared here, and prices recovered the ground that was lost: also the backwardation widened again.

A contributory factor to the temporary easing in prices was undoubtedly the labor troubles in the shipbuilding and engineering industries here, which obviously threatened zinc consumption in the brass and other industries. However, for the time being these troubles have now been overcome, and with the motor car industry definitely more active than for some little time consumption prospects for zinc here are rather better than they have been although it would, perhaps, be over optimistic to suggest that Britain's economic outlook is other than clouded. Possibly once the terms of the Budget are known, a clear appraisal of the situation will be possible.

U. K. LEAD STATISTICS

The British Bureau of Non-Ferrous Metal Statistics reports a slight increase in stocks of both imported virgin lead at 27,935 tons (of which at consumers 17,178 tons and 296 tons in L.M.E. approved warehouses) at the end of January 1957 compared with 26,920 tons at the end of December 1956; and 13,498 tons of English refined (6,869 tons held by consumers) compared with 12,500 tons. Imports during the month totaled 16,257 tons and production of English refined was 8,048 tons. Consumption (full details appear below) was 14,921 tons of imported virgin and 6,814 tons of English refined.

	Jan. 1957	Jan. 1956
Cable	9,683	9,542
Batteries — as metal	2,039	2,598
Battery Oxides	2,092	2,634
Tetraethyl Lead	1,760	2,089
Other Oxides and Compounds	1,988	2,078
White Lead	860	1,087
Shot	457	426
Sheet and Pipe	6,173	5,980
Foil and Collapsible Tubes	510	493
Other Rolled and Extruded	622	681
Solder	1,137	1,031
Alloys	1,315	1,332
Miscellaneous Uses	1,021	1,041
Total Consumption	29,657	31,012
Of which:		
Imported Virgin Lead	14,921	16,246
English Refined	6,814	7,110
Scrap including remelted	7,922	7,656

U. K. TIN STATISTICS

According to figures received from the British Bureau of Non-Ferrous Metal Statistics, stocks of tin in the U. K. at the end of January 1957 showed a decline at 2,878 tons (of which 1,548 tons held by consumers) compared with the 3,175 tons in stocks at the end of December 1956. Imports during the month totaled 25 tons, and production was 2,519 tons of primary and 30 tons of secondary. Consumption totaled 2,134 tons, full details of which are given below:

	Jan. 1957	Jan. 1956
Tinplate	1,136	778
Tinning		
Copper Wire	48	45
Steel Wire	8	9
Other	64	76
Total	120	130
Solder	209	271
Alloys		
Whitemetal	227	243
Bronze & Gunmetal	215	237
Other	35	34
Total	477	514
Wrought Tin (1)		
Foil and Sheets	29	30
Collapsible Tubes	34	37
Pipes, Wire & Capsules	12	2
Total	75	69
Chemicals (2)	105	91
Other uses (3)	12	14
	2,134	1,867

Notes: (1) Includes Compo and "B" Metal.
(2) Mainly Tin Oxide.
(3) Mainly Powder.

U. K. ZINC STATISTICS

Stocks of zinc in the U. K. at the end of January 1957 at 40,501 tons (of which 18,317 tons held by consumers and 1,162 tons in London Metal Exchange warehouses) showed a decline on the end December 1956 figure of 44,816 tons, according to figures received from the British Bureau of Non-Ferrous Metal Statistics. Production during the month totaled 5,729 tons of virgin and consumption (full details of which are given below) totaled 20,944 tons of virgin.

	Jan. 1957	Jan. 1956
Brass	8,764	10,395
Galvanizing	10,171	8,934
of which: General	3,082	3,007
Sheet	3,924	2,547
Wire	1,698	1,807
Tube	1,467	1,573
Rolled Zinc	2,177	2,059
Zinc Oxide	2,475	2,816
Zinc Diecasting & Forming Alloy	2,921	3,757
Zinc Dust	963	833
Miscellaneous Uses	1,014	985
Total all trades	28,485	29,779
Of which:		
Slab Zinc High Purity	3,489	4,087
Electro & High Grade	5,217	6,351
Prime Western g. o. b. & de-based	12,238	10,885
Remelted Zinc	677	477
Brass & other Copper Alloy Scrap (zinc content)	3,840	4,672
Scrap Zinc Metal, Alloy Residues, etc. (zinc content)	3,024	3,307

United States Duties on Principal Ore and Metal Imports

(Including Revisions in Effect June 30, 1956, Under Geneva Agreements)

(Quantities Are in Pounds Unless Otherwise Stated; n.s.p.f. Stands for "Not Specially Provided For.")

COPPER

NOTE — The excise tax of 4c a pound on copper (which was reduced to 2c a pound by the Geneva Trade Agreement) was suspended in April, 1947, until March 31, 1949, and on expiration it was further suspended until June 30, 1950. The tax was reimposed on July 1, 1950. It was suspended again on May 22, 1951, retroactive to April 1, 1951, and until February 15, 1953, and again until June 30, 1954. Suspension further extended to June 30, 1955, and again until June 30, 1958. If import tax is restored, the 1956 Geneva Agreement provides for 5% reductions effective on June 30 of 1956, 1957 and 1958, provided the price is above 24c; if the price is below 24c the 2c tax would prevail.

Copper ore and concentrates, usable as flux, etc., copper content	free
Copper ore and concentrates, product of Cuba and Philippines, copper content	free
Copper ore and concentrates, copper content	free
Regulus, black, or coarse copper, and cement copper, copper content	free
Unrefined black, blister, and converter copper in pigs or converter bars, copper content	free
Refined copper in ingots, plates or bars, copper content	free
Copper rolls, rods or sheets	1¼c lb.
Copper seamless tubes and tubing	3½c lb.
Copper plain wire	12½%
Copper brazed tubes†	5¼c lb.
Old and scrap copper, fit only for remanufacture; and scale and clippings, copper content	free

BRASS

Brass rods, sheets, plates, bars, strips, Muntz or yellow metal sheets, sheathing, bolts, piston rods, shafting and bronze rods, tubes and sheets	2c lb.
Brass tubes and tubing, seamless	2c lb.
Brass tubes, brazed, angles and channels	6c lb.
Brass and bronze wire	12½%

LEAD

NOTE — Import duties on lead-bearing ores, flue dust, and mattes of all kinds, lead bullion or base bullion, lead in pigs and bars, lead dross, reclaimed lead and antimonial lead were suspended February 12, 1952, and reimposed on June 26, 1952. Lead scrap duty was reimposed July 1, 1952.

Lead-bearing ores and mattes, n. s. p. f., lead content	¾c lb.
Bullion or base bullion, lead content	1 1/16c lb.
Pigs and bars, lead content	1 1/16c lb.
Reclaimed, scrap, dross, lead content	1 1/16c lb.
Babbitt metal and solder, lead content	1 1/16c lb.
Pipe, sheets, shot, glaziers' lead, and wire	1 5/16c lb.
Type metal and antimonial lead, lead content	1 1/16c lb.
White lead	1.05c lb.
Litharge	1¼c lb.
Red lead	15/16c lb.
Orange mineral	1c lb.

ZINC

NOTE — Import duties on zinc-bearing ores, and on zinc in blocks, pigs and slabs were suspended February 12, 1952, and reimposed on July 24, 1952. Tax on old zinc and dross and skimmings reimposed July 1, 1953.

Zinc-bearing ores, except pyrites containing not more than 3% zinc, zinc content	6/10c lb.
Zinc contained in zinc-bearing ores, n. e. s., not recoverable, zinc content	6/10c lb.
Zinc, old and worn out, fit only for remanufacture	¾c lb.
Dross and skimmings	¾c lb.
Zinc in blocks, pigs or slabs	7/10c lb.
Zinc in sheets	1c lb.
Zinc sheets, plated with nickel or other base metal, or solutions	1⅛c lb.
Zinc dust	7/10c lb.
Zinc die-casting alloys	12½%
Zinc oxide and leaded zinc oxides containing not more than 25% lead, dry	3/5c lb.
ground in or mixed with oil or water	1c lb.

MISCELLANEOUS METALS AND ORES

Aluminum, metal and alloys, crude, except alloys elsewhere provided for†	1.40c lb.
Aluminum scrap	free
Aluminum plates, sheets, bars, rods, circles, squares, etc.†	2.80c lb.
Antimony ore, antimony content	free
Antimony metal and regulus	2c lb
Antimony needle or liquidated	¼c lb
Antimony oxide	1c lb
Antimony sulphides	½c lb. & 12½%
Arsenic, metallic†	2.80c lb
Arsenious acid or white arsenic	free
Bauxite, crude*	free
Bauxite, refined**	¼c lb.
Bismuth	1⅞%
Bismuth salts and compounds	35%
Beryllium metal and compounds†	23½%
Beryllium ore	free
Cadmium	3¾c lb.
Cadmium flue dust, cadmium content	free
Chrome ore or chromite	free
Chrome or chromium metal†	11½%
Cobalt metal	free
Cobalt ore and concentrates, cobalt content	free
Magnesium, metallic†	17.20c lb.
Magnesium alloys, powder, sheets, wire†	19c lb. & 9½%
Magnesium scrap	free
Manganese ores, containing over 10% manganese, manganese content	¼c lb., except Cuba, free
Molybdenum ore or concentrates, molybdenum content†	33c lb.
Nickel ore, matte and oxide	free
Nickel and alloys, nickel chief value, n. s. p. f., in pigs, ingots, shot, cubes, grains, cathodes, or similar forms	1¼c lb.
Nickel, bars, rods, plates, sheets, castings, strips, wire or electrodes	12½%
Nickel scrap	free
Nickel tubes, tubing (if cold rolled, drawn or worked — 2½% extra)	6¼%
Platinum, grain, nuggets, sponge and scrap, oz. troy	free
Platinum in ingots, bars, sheets, or plates, not less than ⅛ in. thick, oz. troy	free
Platinum, ores, platinum content, oz. troy	free
Quicksilver or mercury	25c lb.
Selenium and salts	free
Tantalum	12½%
Tin ore, cassiterite, and black oxide of tin, tin content	free
Tin in bars, blocks, pigs, grain, granulated, and scrap, and alloys, chief value tin, n. s. p. f.	free
Tungsten ore or concentrates, tungsten content	50c lb.

***Crude bauxite import duty suspended to July 15, 1958. **Under Public Law 25 alumina imported for use in aluminum production is free for entries from July 17, 1956 to July 16, 1958. †Tariff to be reduced 5% on June 30, 1957 and 5% on June 30, 1958, under Geneva Agreement which expires on June 30, 1959.**

STRENGTH IN U. S. COPPER MARKET INFLUENCED BY STRIKES, OUTPUT CUTBACK BY DOMESTIC PRODUCER

No Increase in Red Metal Demand; Lead, Zinc Firm; Floor Price for Buffer Stock Tin Raised; Secondary Aluminum Easier; Silver Steady

April 8, 1957

STRENGTH in copper during March and in early April was chiefly influenced by strikes in Northern Rhodesia, Chile, Canada and the U. S. Also contributing to the improved market sentiment was a cutback announcement by a leading domestic producer. The firmer tone, although there was no perceptible increase in demand from consumers, was reflected in the quotation of 31.50c a pound for custom smelter electro copper, with producers maintaining their 32.00c a pound delivered level.

The Government acquisition of both lead and zinc for the stockpile continued to lend support to the markets for both of these metals. Lead was unchanged at 16.00c New York, with Prime Western zinc continuing at 13.50c a pound East St. Louis.

Activity in tin was quieter at this writing, following a spurt in prices after the International Tin Council increased the Buffer Stock floor tin quotation. Spot Straits tin at New York on April 8 was 98.00c a pound, with prompt metal at the same level.

Secondary aluminum prices reflected an easier tone that prevailed in both the primary and secondary aluminum markets. Primary aluminum was unchanged at 27.10c a pound, f.o.b., for the 99 per cent plus 30-pound ingot.

Silver was steady at 91.375c an ounce New York. Spot quicksilver held at $255 to $257 per flask although volume business was absent.

Copper Industry Strikes

Several strikes in the copper industry in March and early April (some since settled) improved sentiment in the market for the red metal. The first strike of any consequence occurred at the Gaspe mine, a subsidiary of Noranda Mines, Ltd., in Quebec. Gaspe, which produces about 2,400 tons of copper a month, has been idle since March 10. A strike at Noranda itself was averted when union members failed to approve a walkout.

On April 1, Kennecott's El Teniente mine (15,000 tons of copper a month) at the Braden property in Chile was closed by a strike, as was Northern Rhodesia's Mufulira mine (9,000 tons). On April 5, two other Copperbelt mines were shut down, Chibuluma (2,000 tons) and Kansanshi (850 tons). All of the Rhodesian mines were back in operation, however, by April 8, but El Teniente was still idle.

A wildcat strike on April 4 also halted operations temporarily at the American Smelting and Refining Company's copper smelter at Hayden, Ariz., and which treats about 5,000 tons of copper a month. This strike lasted only a few days.

P. D. Copper Output Cut

Phelps Dodge Corp. announced on March 14 a revision in its open pit mining and milling operations so that there will be 23 operating days instead of 24 in each four-week period. In November, 1956, the operating schedule was reduced from 26 days out of 28 to 24 days out of 28. The additional cutback supplements the move to keep supply in balance with demand. The combined effect of the two cutbacks amounts to a reduction of 2,250 tons per month from the company's 1956 output of 270,000 tons which was equivalent to 22,500 tons per month.

Aside from Anaconda, which last October also reduced its output by about 2,000 tons per month, no other company has as yet announced a cut in production.

CHILE COPPER STRIKE ENDED; SMELTER ELECTRO AT 31c LB.

The 10-day strike at Kennecott's El Teniente mine in Chile was settled on April 11. The U. S. custom smelter electro copper price dipped to 31.00c a pound on April 12; smelters cut their scrap copper buying prices to a basis of 25.25c a pound for No. 2 heavy copper and wire. Dealers in the outside market were sellers on April 15 of electro copper at 30.50c a pound delivered for April and May shipment.

No Increase in Demand

Consumers did not appear to be too impressed by the strike news. Following the outbreak of strikes at El Teniente and Mufulira, and a £4 10s a long ton gain (a little over 0.50c a pound) on the London Metal Exchange on April 1, custom smelter copper here sold at 31.00c and 31.50c a pound; on April 2 smelter electro was quoted at 31.50 to 32.00c. But by April 4, when it became evident consumers were not rushing to place orders, the smelter price slid off to a flat 31.50c a pound.

Custom smelters' scrap copper buying prices followed a similar pattern, rising to a basis of 26.00c a pound for No. 2 heavy copper and wire on April 3, and then dipping to 25.75c on April 4.

Throughout the rise and dip in smelter quotations, primary copper producers held to their price of 32.00c a pound delivered for electro; the 32.00c level was established on February 19.

On the foreign price front, the large Belgian Congo producer, Union Miniere du Haut Katanga, increased its electro on April 2 to the equivalent of 29.85c a pound f.a.s. New York, a rise of 0.45c from the 29.40c level established on March 21. GIRM, the French agency which buys copper throughout the world for resale to French consumers, also on April 2 increased its electro price to 31.17c a pound f.a.s. New York, a gain of 0.52c a pound.

Lead, Zinc Demand Fair

Demand for lead was described as fair with buying at the present time chiefly on the part of consumers who now make it a practice to place their carload orders during the month when the metal is to be shipped. The very large consumers have already bought most of the lead that they need in May except for what additional metal they may need for fill-in purposes. Producers continued to quote lead at 16.00c a pound New York and 15.80c St. Louis.

The zinc market was steady but not overly active. Carload orders were placed for shipment during April, some at the spot price of 13.50c a pound East St. Louis for the Prime Western grade and some at the April average.

Government buying of lead and zinc for the national stockpile, although at a reduced rate with not all offerings made by domestic producers accepted, continued to lend support to both metals. Lead and zinc of foreign origin also was being acquired by the Government in barter deals involving surplus U. S. farm products for strategic foreign materials and metals. (See Washington Report on Page 5 of this issue.)

March Zinc Statistics

If the Government had not taken close to 26,000 tons of zinc of domestic and foreign origin for the stockpile in March, the unsold stocks of slab zinc in the hands of domestic producers would have shown an increase of about 28,000 tons. As it was the actual increase in stocks was only 2,452 tons, bringing the total at the end of March to 89,341 tons, the largest that it has been since the end of last September. It was difficult to determine what portion of the 25,608 tons that went to the Government in March represented purchases of domestic origin zinc for the long term stockpile and how much zinc smelted here from foreign concentrates was acquired through barter transactions.

Other zinc statistics (all grades) in tons for March with the February totals in parentheses, follow: production, 96,715 (88,078); shipments to

(Continued on Page 16)

Domestic Metal Markets

(Continued from Page 15)

domestic consumers, 67,097 (67,731); total shipments to domestic consumers, to the Government and for export on drawback, 94,263 (80,163); unfilled orders on producers' books at end of month, 56,818 (56,421).

Tin Floor Price Raised

Domestic tin prices advanced in late March reflecting action taken by the International Tin Council at its meeting in London on March 22. The ITC raised the floor price from £640 a long ton (80.00c a pound) to £730 (91.25c), a markup of £90 a ton (11.25c a pound). The ITC left the ceiling price unchanged at £880 a ton ($1.10 a pound). Although it had been generally anticipated that the ITC would raise the minimum price for Tin Buffer Stock transactions, the size of the increase was greater than had been expected.

On the first business day (March 25) following the ITC's action, the domestic price for spot Straits tin shot up to 102.00c a pound New York from 100.625c on March 22. This was the high for the March 6-April 8 period, which started at 99.25c and ended at 99.00c. The low for the period was the 98.375c registered on April 4.

Secondary Aluminum Easier

Secondary aluminum prices on April 8 reflected an easier tone that prevailed in both the primary and secondary markets. Indicative of the easier supply situation in the primary market was the fact that Aluminum Company of America has notified the General Services Administration that it is ready to exercise the put option in its aluminum expansion contract with the Government by delivering 125,000 tons of aluminum to the GSA. Previously, Reynolds Metals Co. and Kaiser Aluminum & Chemical Corp. have offered to deliver a total of 60,000 tons of aluminum to the GSA.

The U. S. Bureau of Foreign Commerce announced on April 8 that aluminum scrap and remelt aluminum ingots originating in U. S. territories or possessions outside the continental U. S. may be exported without regard to quantitative limitations. Licensing policy and requirements for such scrap and ingot exported from the continental U. S. remained unchanged.

Silver Steady

The New York silver price was maintained at 91.375c an ounce. This level was established on October 17, 1956, following an increase of 0.375c an ounce.

Quicksilver Unchanged

Spot quicksilver was unchanged at $255 to $257 per flask of 76 pounds; this range was established on November 14, 1956. Domestic consumer buying has been on the light side.

Aluminum Demand Apt to Double Within Decade

(Continued from Page 10)

excess of 125 such companies in the United States today, compared with only four prior to World War II.

There are those among us who speak of the aluminum industry coming to maturity in this decade. We are not sure that this is true. If maturity is meant to imply a levelling off in the growth curve, we do not agree; if maturity is meant to imply that the industry is now firmly established in the economic fabric of the country, we do agree; and if maturity is meant to imply that markets and supply can now move forward together without the historical dislocations characteristic of our industry, then we would wholeheartedly agree.

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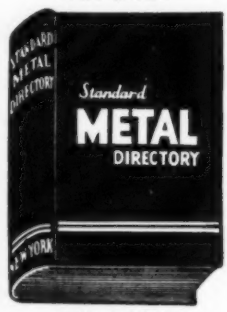

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Washington Report

(Continued from Page 5)

leased by the House Appropriations Subcommittee and before which BDSA Administrator Horace McCoy recently testified.

Mr. McCoy told the committee a number of revisions would be made in the coming months in the Defense Materials System. The revisions he said, "would be designed to improve the statistical basis for establishing nickel alloy requirements for the defense program on the one hand, and provide a closer record of the use of all controlled material, including nickel alloys, in the defense program on the other hand."

DMEA Contracts

The Defense Minerals Exploration Administration executed the one-thousandth contract providing financial assistance in exploration for strategic and critical minerals during February, 1957, Secretary of the Interior Fred A. Seaton reported. At the close of February, 1,002 contracts had been executed by the agency since the beginning of the program, involving total estimated costs of $47,398,186 and maximum Government participation of $29,297,825.

Aluminum Industry Survey

Phenomenal increases in world production of aluminum have seen output grow from 7,500 short tons in 1900 to 3,069,000 short tons in 1954, with expansion still under way, according to a world-wide survey of the industry just completed by the BDSA's Aluminum and Magnesium Division. The survey, titled "Materials Survey-Aluminum," is one of a series of strategic material studies ordered in 1949 by the National Security Resources Board, predecessor of the Office of Defense Mobilization. The 318-page survey required several years of research.

The survey indicates that average annual gross of the aluminum industry on the world-wide scale during the period 1900 through 1954 was 11 per cent. In 1955, the United States accounted for 46 per cent of the world production and Canada 18 per cent.

Mercury Purchase Program

The Office of Defense Mobilization announced March 21 that it was authorizing the General Services Administration to extend the mercury purchase guarantee program through 1958. The extension of the program will permit acquisition of up to 50,000 flasks at a guaranteed price of $225 per flask during that year. A total of 30,000 flasks may be acquired from domestic (including Alaska) production and 20,000 flasks from Mexico.

Under the current program, authorized in July, 1954, the Government has guaranteed to purchase up to 200,000 flasks of mercury at $225 per flask through December 31, 1957. A total of 125,000 flasks was authorized to be purchased from domestic production and 75,000 flasks from Mexican production. Because the market price has been higher than the price guaranteed by the Government, only nominal offerings have been made under the program.

Daily Metal Quotations in March, 1957

The following quotations are taken from the Daily Metal Reporter
(In Cents Per Pound)

MARCH	Copper					Tin		Lead		Zinc					Aluminum	Antimony	Silver
	Producers' Price Del. Conn.	Custom Smelters' or Outside Price	Electro f. o. b. Refinery	Lake Del.	Average Electrolytic Export Price f.a.s. N. Y.	Straits New York Spot	Straits New York Prompt	New York	Outside St. Louis	Prime West. f. o. b. E. St. Louis	Prime West. Del. N. Y.	Brass Spec. f. o. b. E. St. Louis	High Grade Delivered	Spec. High Grade Delivered	30-Lb. Ingot 99% Plus (f. o. b.)	Domestic Spot 99.5% f.o.b. Laredo	(Cents Per Ounce) New York
1	32.00	31.00	31.10	32.00	30.438	98.50	98.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
2	32.00	31.00	31.10	32.00	30.438	...	...	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	...
4	32.00	31.00	31.10	32.00	30.438	99.125	98.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
5	32.00	31.00	31.10	32.00	30.438	98.75	98.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
6	32.00	31.00	31.10	32.00	30.438	99.25	99.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
7	32.00	31.00	31.10	32.00	30.438	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
8	32.00	31.00	31.10	32.00	30.438	99.50	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	...
9	32.00	31.00	31.10	32.00	30.348	...	...	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
11	32.00	31.00	31.10	32.00	30.125	98.875	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
12	32.00	31.00	31.10	32.00	30.25	99.125	98.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
13	32.00	31.00	31.10	32.00	30.125	98.75	98.625	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
14	32.00	31.00	31.10	32.00	30.00	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
15	32.00	31.00	31.10	32.00	30.00	100.25	100.00	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	...
16	32.00	31.00	31.10	32.00	30.00	...	...	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
18	32.00	31.00	31.10	32.00	30.125	99.625	99.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
19	32.00	31.00	31.10	32.00	30.125	99.50	99.25	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
20	32.00	31.00	31.10	32.00	30.00	99.875	99.625	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
21	32.00	31.00	31.10	32.00	30.00	99.875	99.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
22	32.00	31.00	31.10	32.00	30.00	100.625	100.375	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	...
23	32.00	31.00	31.10	32.00	30.00	...	...	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
25	32.00	30.75	30.85	32.00	30.00	102.00	101.75	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
26	32.00	30.50	30.85	32.00	30.00	101.25	101.125	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
27	32.00	30.875	30.975	32.00	30.00	100.625	100.50	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
28	32.00	30.875	30.975	32.00	30.25	99.75	99.625	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
29	32.00	30.875	30.975	32.00	30.50	99.00	98.875	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	....
30	32.00	30.875	30.975	32.00	30.50	...	...	16.00	15.80	13.50	14.00	13.75	14.85	15.25	27.10	33.00	91.375
AV.	**32.00**	**30.952**	**31.062**	**32.00**	**30.21**	**99.643**	**99.476**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**27.10**	**33.00**	**91.375**
HI.	**32.00**	**31.00**	**31.60**	**32.00**	**30.50**	**102.00**	**101.75**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**27.10**	**33.00**	**91.375**
LO.	**32.00**	**30.50**	**30.10**	**32.00**	**30.00**	**98.50**	**98.25**	**16.00**	**15.80**	**13.50**	**14.00**	**13.75**	**14.85**	**15.25**	**27.10**	**33.00**	**91.375**

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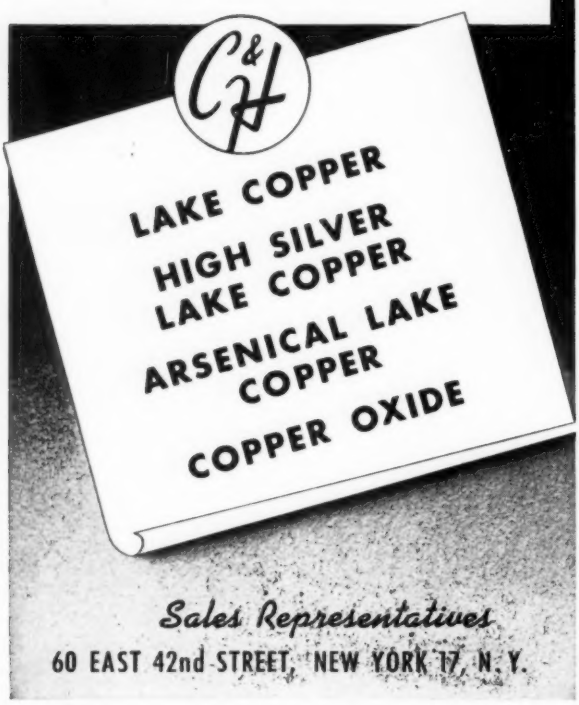

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B. E. R.	American Smelting & Refining Co. (Baltimore, Md.)	Electrolytic
P. A.	American Smelting & Refining Co. (Maurer, N. J.)	Electrolytic
T	American Smelting & Refining Co. (Tacoma, Wash.)	Electrolytic
B. & M.	Anaconda Copper Mining Co.	Electrolytic
AE	Andes Copper Mining Co.	Electrolytic
BOLIDEN	Bolidens-Gruvaktiebolag	Electrolytic
C. C. R.	Canadian Copper Refiners Ltd. (Montreal)	Electrolytic
C de P Peru	Cerro de Pasco Corporation	Electrolytic
C. C. C.	Chile Copper Company	Electrolytic
F E C	Falconbridge Nickel Mines, Ltd.	Electrolytic
K U E	Kennecott Copper Corp.	Electrolytic
L. M. C.	Lewin Metals Corporation	Electrolytic
M U F	Mufulira Copper Mines, Ltd.	Electrolytic
N A	Norddeutsche Affinerie	Electrolytic
O R C	Ontario Refining Co., Ltd.	Electrolytic
A. L. S.	Philps Dodge Refining Corp. (For Adolph Lewisohn Selling Corp.)	Electrolytic
L. N. S.	Phelps Dodge Refining Corp.	Electrolytic
P • D	Phelps Dodge Corporation	Electrolytic
N. E. C.	Raritan Copper Works	Electrolytic
R E C	Rhokana Corporation	Electrolytic
B O R	Rudnici Bakra i Topionice	Electrolytic
U M K	Union Miniere du Haut Katanga	Electrolytic
D R W	†United States Metals Refining Co.	Electrolytic
AMCO	†United States Metals Refining Co.	Electrolytic
OFHC	†United States Metals Refining Co.	Electrolytic
W E K	Zinnwerke Wilhelmsburg G.m.b.H.	Electrolytic

†Subsidiary, The American Metal Co., Ltd.

Brand or Marks	Producer	Grade
C & H	Calumet & Hecla Consolidated Copper Co.	Lake
C. R.	Copper Range Company	Lake
Q. M. CO.	Quincy Mining Company	Lake

Brand or Marks	Producer	Grade
B. C. R.	British Copper Refiners, Ltd.	Fire Refined High Conductivity
N. H. E.	Nassau Smelting & Refining Co., Inc.	Fire Refined High Conductivity
A M CO	United States Metals	Fire Refined High
R H C	Refining Company	Conductivity

Brand or Marks	Producer	Grade
• • • (3 Star)	Braden Copper Company	Fire Refined (other than Lake & Fire Refined High Conductivity)
K C M	Kennecott Copper Corporation	
M T D	Messina (Transvaal) Development Co.	
P. D. M.	Phelps Dodge Corporation	
R	†United States Metals Refining Company	

Official List of Approved Refiners

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Andes Copper Mining Co.
Bolidens Gruvaktiebolag
Canadian Copper Refiners, Ltd.
Cerro de Pasco Copper Corp.
Chile Copper Company
Consolidated Mining & Smelting Co.
Falconbridge Nickel Mines, Ltd.
Kennecott Copper Corp.
Lewin Metals Corp.
Mufulira Copper Mines, Ltd.
Norddeutsche Affinerie
Ontario Refining Co., Ltd.
Phelps Dodge Refining Corp.
Phelps Dodge Corporation
Raritan Copper Works
Rhokana Corporation
Rudnici Bakra i Topionice
Union Miniere du Haut Katanga
United States Metals Refining Co.
Zinnwerke Wilhelmsburg G.m.b.H.

Lead Brands

Refined At	Producer	Brand Mark
Federal, Ill., U. S.	American Smelting & Refining Co.	•ALTON
Carteret, N. J., U. S.	United States Metals Refining Co.	••A M CO
Monterrey, Mexico	American Smelting & Refining Co.	•ASARCO MONTERREY
Port Pirie, Australia	Broken Hill Associated Smelters	•B.H.A.S.
Indianapolis, Ind., U. S.	National Lead Co., American Lead Plant	†aBLUE ARROW AMERICAN LEAD CORP
Braubach a/Rhein, Germany	Blei-und Silberhutte Braubach	•Braubach dopp. raff. Deutschland
Idaho, U. S.	Bunker Hill Smelter	•BUNKER "C" HILL
Orya, Peru	Cerro de Pasco Copper Corp.	•CERRO PERU
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aCHEMICAL ST. L. S. & R. CO.
Monterrey, N. L., Mexico	Compania Metalurgica Penoles, S.A.	••C.M.F. y A.M.
Alton, Ill., U. S.	St. Joseph Lead Company	•DOE RUN
Oker, Germany	Unterharzer Berg- und Huttenwerke	•HARZ 99.985, HARZ 99.9
Joplin, Mo., U. S.	Eagle-Picher Mining & Smelting Co.	•EAGLE-PICHER
Kamioka, Japan	Mitsui Mining Co.	•E.M.K.
Stolberg, Rhineland, Germany	Stolberger Zinc Aktiengesellschaft fur Bergbau und Hattenbetrieb	•Eschweiler raffine
Federal, Ill., U. S.	American Smelting & Refining Co.	•FEDERAL
Chicago, Ill., U. S.	Goldsmith Bros. Smelting & Refining Co.	†G B
Hoboken, Belgium	Societe Generale Metallurgizue de Hoboken	•H.E.R. Escaut
Alton, Ill., U. S.	St. Joseph Lead Company	•HERCULANEUM
Omaha, Neb., U. S.	International Smelting & Refining Co.	•ILR
Monsanto, Ill., U. S.	Lewin-Mathes Co.	†MONSANTO
Monteponi, Italy	Societa di Monteponi	•Monteponi
San Gavino Monreale, Sardinia, Italy	Montevecchio Societa Italiana del Piombo e dello Zinco	•Montevecchio
Hammond, Ind., U. S.	Metals Refining Company	†M R CO METALS REFINING CO.
Omaha, Neb., U. S.	American Smelting & Refining Co.	•OMAHA & GRANT
Overpelt, Belgium	Compagnie des Metaux d-Overpelt-Lommel et de Corphalie, S.A.	•Overpelt extra-raffine O.V.-L.L.-Dur.
Megrine, Tunis	Ste. Min. & Metall. de Penarroya	•Penarroya
Penarroya, Sopwith & Cartagena. Spain	Ete Min. & Met. de Penarroya	•Penarroya
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	•PERTH AMBOY
Genoa, Italy	Societa di Pertusola	•Pertusola
Alton, Ill., U. S.	St. Joseph Lead Company	•ST. JOE
Collinsville, Ill., U. S.	St. Louis Smelting & Refining Co.	†aST. L. S. & R. CO.
Selby, Calif., U. S.	American Smelting & Refining Co	•SELBY
Trail, B. C., Canada	Consolidated Mining & Smelting Co. of Canada, Ltd	•TADANAC
Baelen-Usines, Belgium	Ste des Mines and Founderies de Zinc de la Vieille-Montagne Angiem	•Three Stars Vieille-Montagne Bar
Mexica, Yugoslavia	Central European Mines, Limited	•TRECA
Perth Amboy, N. J., U. S.	American Smelting & Refining Co.	•TSUMCO
Hoboken, Belgium	The Tsumeb Corporation	•TSUMCO
Midvale, Utah, U. S.	United State Smelting, Refining & Mining Company	•USS CO
E. Chicago, Ind., U. S.	United States Smelting, Refining & Mining Company	•U S S CO ELECTRO
Norfolk, Va., U. S.	Virginia Lead Smelting Corp., The	†aVIRGINIA
Staten Island, N. Y., U. S. A.	Nassau Smelting & Refining Co.	Nassau Blue
Newark, N. J., U. S. A.	Hudson Smelting & Refining Co.	Hudson
Philadelphia, Pa., U. S. A.	Bers & Co., Inc.	Schuylkill

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aSubsidiary of National Lead Co.

Copper Statistics Reported by Copper Institute

Combined Totals in U. S. A. and Outside U. S. A.

(In tons of 2,000 pounds)

	Crude Production		Refined	Deliveries to	Refined Stock	Stock Increases or Decreases		
	Primary	Secondary	Production	Customers	End of Period	Blister	Refined	Total
1955 Total	2,613,662	133,065	2,728,309	2,744,391	221,331	+18,418	— 8,552	+11,112
1956								
Feb.	228,409	11,355	243,458	236,841	226,686	— 193	+ 9,371	+ 9,178
Mar.	243,676	14,293	258,462	261,814	225,827	— 493	— 859	— 1,352
Apr.	232,986	14,716	254,462	242,244	238,125	— 6,760	+12,298	+ 5,538
May	237,177	18,608	269,846	256,245	252,130	—14,061	+12,161	— 1,900
June	238,814	11,360	251,382	236,714	266,221	+ 1,309	+14,091	+15,130
July	233,182	11,174	240,633	198,800	303,225	+ 3,723	+37,004	+40,727
Aug.	241,295	10,605	242,614	224,546	315,572	+ 8,486	+12,347	+ 20,833
Sept.	221,401	8,126	217,522	219,479	309,351	+12,005	— 6,221	+ 5,784
Oct.	255,442	13,924	263,752	234,080	333,952	+ 5,614	+24,601	+30,215
Nov.	249,360	10,204	254,377	239,181	345,181	+ 5,187	+11,229	+16,416
Dec.	236,512	13,124	250,173	237,003	354,420	— 537	+ 9,239	+ 8,702
Total	2,862,839	152,536	2,987,060	2,830,407	354,420	+28,415	+133,089	+161,402
1957								
Jan.	240,790	15,514	256,729	263,014	344,972	— 245	— 9,448	— 9,693
Feb.	235,559	10,426	242,780	214,796	309,956	+ 3,205	+24,984	+28,189

In U. S. A.

1955 Total	1,036,702	124,760	1,467,448	1,446,354	61,554	.....	+14,446	.....
1956								
Feb.	89,326	11,697	127,917	139,383	47,053	.....	— 2,963	.....
Mar.	99,681	12,596	144,027	141,590	51,595	.....	+ 4,542	.....
Apr.	95,499	13,780	140,032	139,927	54,887	.....	+ 3,292	.....
May	101,422	17,475	145,740	142,961	56,208	.....	— 523	.....
June	98,496	12 471	136,713	131,299	60,671	.....	+ 4,463	.....
July	84,787	10,387	125,401	97,698	87,944	.....	+27,273	.....
Aug.	91,282	9,545	122,108	109,618	96,450	.....	+ 8,506	.....
Sept.	88,659	7,367	112,484	104,486	93,202	.....	— 3,248	.....
Oct.	95,109	12,621	136,379	113,353	106 120	.....	+12,918	.....
Nov.	90,573	8,940	132,970	114,524	116,516	.....	+10,396	.....
Dec.	92,231	12,352	129,839	99,594	120,645	.....	+ 4,129	.....
Total	1,133,134	139,584	1,580,287	1,465,899	120,645	.....	+50,091	.....
1957								
Jan.	94,783	14,683	139,150	119,925	118,564	.....	— 2,081	.....
Feb.	92,242	8,790	134,119	101,565	136,330	.....	+17,766	.....

Outside U. S. A.*

1955 Total	1.576.960	8.305	1,260,861	1,298,037	159,777	.....	—21,752	.....
1956								
Feb.	138.918	1,808	115.541	97,458	179,633	.....	+12,334	.....
Mar.	143,995	1.697	114,435	120,224	174,232	.....	— 5,401	.....
Apr.	137,487	936	114,430	102,317	183,238	.....	+ 9,005	.....
May	135,755	1,133	124,106	113,284	195,922	.....	+12,684	.....
June	140,318	1,136	114.669	105,415	205,550	.....	+ 9,628	.....
July	148.395	787	115,232	101,102	215,281	.....	+ 9,731	.....
Aug.	150,013	460	120,706	114,928	219,122	.....	+ 3,841	.....
Sept.	132,742	759	105.038	114,993	216,149	.....	— 2,973	.....
Oct.	160.333	1,303	127,373	120,727	227,832	.....	+11,683	.....
Nov.	158,787	1,264	121.407	124,657	228,665	.....	+ 833	.....
Dec.	144,281	772	120,334	137,409	233,775	.....	+ 5,110	.....
Total	1,729,705	12,952	1,406,773	1,364,508	233,775	.....	+73,998	.....
1957								
Jan.	146,097	831	117,579	143,089	226,408	.....	— 7,367	.....
Feb.	143,317	1,636	108,661	113,231	233,626	.....	+ 7,218	.....

* Excluding Russia, Yugoslavia, Norway, Sweden, Japan and Australia.

Electrolytic Copper

Producers' Price, Del. Valley
Monthly Average Prices
(Cents Per Pound)

	1954	1955	1956	1957
Jan.	29.88	30.24	43.00	36.00
Feb.	29.88	33.00	44.03	33.318
Mar.	29.93	33.222	46.00	32.00
Apr.	29.98	36.00	46.00	....
May	30.00	36.00	46.00	....
June	30.00	36.00	46.00	....
July	30.00	36.00	41.56	....
Aug.	30.00	37.81	40.00	....
Sept.	30.00	43.00	40.00	....
Oct.	30.00	43.00	39.308	....
Nov.	30.00	43.00	36.00	....
Dec.	30.00	43.00	36.00	....
Ave.	29.27	37.522	41.992	....

Electrolytic Copper

Custom Smelters' Price, Del. Valley
Monthly Average Prices
(Cents Per Pound)

	1954	1955	1956	1957
Jan.	29.75	30.48	50.22	34.87
Feb.	29.75	33.00	52.07	32.273
Mar.	29.866	33.667	53.11	30.952
Apr.	29.965	36.00	48.88	....
May	30.00	36.00	44.221	....
June	30.00	36.00	40.00	....
July	30.00	36.00	38.14	....
Aug.	30.00	40.14	39.32	....
Sept.	30.00	50.00	39.00	....
Oct.	30.00	45.99	37.192	....
Nov.	30.00	45.84	35.96	....
Dec.	30.00	49.42	35.45	....
Aver.	29.944	39.38	42.797	....

Lake Copper

Producers' Price Delivered
Monthly Average Prices
(Cents Per Pound)

	1954	1955	1956	1957
Jan.	30.00	30.12	43.00	36.00
Feb.	30.00	33.00	43.783	33.182
Mar.	30.00	33.56	46.00	32.00
Apr.	30.00	36.00	46.00	....
May	30.00	36.00	46.00	....
June	30.00	36.00	46.00	....
July	30.00	36.00	41.68	....
Aug.	30.00	37.46	40.00	....
Sept.	30.00	43.00	40.00	....
Oct.	30.00	43.00	39.321	....
Nov.	30.00	43.00	36.00	....
Dec.	30.00	43.00	36.00	....
Aver.	30.00	37.51	41.975	....

Fabricators' Copper Statistics

(In tons of 2,000 pounds)

	Fabricators' Stocks of Refined Cop.	Unfilled Purchases of Refined by Fab. from Producers	Fabricators' Working Stocks	Unfilled Sales by Fabricators to Customers	Actual Copper Consmd. by Fabricators	Excess Fabricators' Stocks Over Orders Bkd.
1951						
Total	280,402	32,147	295,385	303,050	1,392,111	—285,886
1952						
Total	333,455	32,652	292,157	275,312	1,389,451	—201,362
1953						
Total	380,881	25,022	309,664	170,917	1,375,869	— 74,678
1954						
Dec.	360,526	58,125	304,619	136,581	99,479	— 22,549
Total	.....	.....	.....	.....	1,232,090	.....
1955						
Jan.	334,105	66,122	302,658	159,016	136,539	— 61,447
Feb.	323,425	75,840	301,597	180,898	118,786	— 83,230
Mar.	311,235	85,859	301,937	187,827	143,544	— 92,670
Apr.	316,575	88,992	304,117	205,308	115,073	—103,868
May	327,343	111,715	309,219	323,279	113,485	—102,440
June	327,696	126,703	309,972	234,578	132,377	— 90,151
July	312,587	165,505	301,048	286,095	75,846	—109,051
Aug.	304,097	150,854	303,089	283,653	97,688	—131,791
Sept.	334,996	133,391	314,111	270,102	113,628	—115,826
Oct.	353,469	135,075	313,048	275,255	115,453	— 99,759
Nov.	373,314	139,855	313,779	283,953	122,332	— 84,563
Dec.	389,974	139,094	314,145	293,264	127,006	— 78,341
Total	.....	.....	.....	.....	1,412,287	.....
1956						
Jan.	376,753	143,815	312,128	305,942	138,711	— 97,502
Feb.	388,823	135,637	319,279	282,314	130,923	— 77,133
Mar.	392,143	140,348	319,056	291,465	135,746	— 78,030
Apr.	413,979	135,071	319,247	266,239	118,839	— 36,436
May	435,083	131,023	318,592	249,352	122,253	— 1,838
June	451,126	114,223	324,970	227,097	113,835	+ 13,282
July	465,015	109,040	334,584	220,810	81,275	+ 18,661
Aug.	457,679	115,295	338,818	221,975	117,937	+ 12,181
Sept.	445,679	114,981	338,488	204,154	115,867	+ 18,018
Oct.	440,706	112,893	336,856	198,517	119,440	+ 18,226
Nov.	435,216	110,792	335,829	178,814	119,441	+ 31,365
Dec.	437,187	117,601	336,217	183,834	99,223	+ 34,737
Total	.....	.....	.....	.....	1,416,278	.....
1957						
Jan.	435,635	107,231	335,944	178,326	119,517	+ 28,596
Feb.	422,223	110,174	334,542	178,889	114,341	+ 18,966

Scrap Copper Receipts by Custom Smelters and Refineries in United States*

(In Short Tons)

	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Jan.	10,172	17,084	15,763	6,640	4,528	6,486	9,859	11,047	14,322	17,506
Feb.	11,890	20,238	12,500	5,153	3,633	10,337	8,490	15,198	14,497	11,136
Mar.	14,954	20,678	13,538	7,912	5,243	19,991	9,738	12,198	15,921	....
Apr.	15,125	15,968	12,304	8,553	6,214	16,583	9,004	13,162	17,233	....
May	16,357	14,237	8,749	8,458	8,033	10,857	8,687	15,133	20,805	....
June	11,178	8,809	20,523	8,628	4,425	10,945	13,309	14,765	14,758	....
July	8,370	7,782	10,040	6,642	5,188	9,063	10,260	9,988	12,632	....
Aug.	17,081	8,246	10,452	6,113	5,003	7,137	10,100	13,197	12,510	....
Sept.	16,001	10,980	4,903	3,561	4,667	9,042	10,641	15,037	9,518	....
Oct.	10,854	6,401	9,459	3,336	4,602	10,065	11,662	12,897	15,570	....
Nov.	7,625	15,347	9,237	3,179	4,724	7,815	10,879	9,865	11,369	....
Dec.	11,826	10,533	7,178	4,538	6,208	11,476	14,876	13,180	14,613	....
Total	147,931	156,303	142,067	71,812	62,470	129,798	127,449	154,714	173,748	

* As compiled by Copper Institute.

Brass and Bronze Ingot Monthly Shipments

(Net Tons)

The following figures showing the combined shipments of ingot brass and bronze are compiled by the Ingot Brass and Bronze Industry and represent in excess of 95 per cent of the deliveries of the entire industry.

	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957
Jan.	27,841	26,998	19,456	18,874	28,415	28,315	24,423	20,661	25,201	27,736	27,736
Feb.	24,686	22,487	15,026	18,487	27,168	24,211	25,429	19,920	25,349	24,949	20,769
Mar.	17,477	24,282	14,550	22,494	31,997	23,890	28,256	23,653	29,713	28,310	21,948
Apr.	24,577	25,177	10,695	22,118	30,472	22,547	25,044	24,746	27,641	25,808	....
May	19,526	23,716	11,114	23,643	33,267	21,740	21,660	22,269	23,708	23,437	....
June	16,929	24,401	9,696	25,093	33,817	21,274	20,818	22,348	23,141	18,842	....
July	16,728	20,456	10,220	21,609	32,016	18,947	19,321	17,074	18,513	17,364	....
Aug.	18,589	24,098	14,194	26,689	25,285	21,807	20,156	21,684	27,018	23,812	....
Sept.	19,025	23,641	16,208	28,811	22,285	22,770	21,463	22,464	26,349	20,929	....
Oct.	22,806	21,559	18,026	32,240	23,124	25,811	22,280	24,080	25,228	23,045	....
Nov.	21,666	21,731	18,488	31,748	23,544	23,441	21,860	23,061	25,102	21,818	....
Dec.	23,862	20,954	17,960	28,575	20,987	22,983	20,541	21,274	21,448	18,046	....
Total	263,711	279,500	175,643	303,563	332,378	277,736	271,251	263,233	298,406	274,096	....
Aver	21,976	23,292	14,637	25,297	27,615	23,145	22,604	21,936	24,867	22,841	....

Mine Production of Copper in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern	Missouri	Western	Total
1953				
Ttl.	38,900	2,374	885,174	926,448
1954				
Ttl.	40,302	1,925	793,241	835,472
1955				
Sept.	6,928	130	83,213	90,271
Oct.	6,552	195	85,445	92,192
Nov.	6,188	184	84,681	91,053
Dec.	6,758	179	81,638	88,575
Ttl.	68,622	2,140	921,838	992,600
1956				
Jan.	6,674	163	88,277	95,114
Feb.	6,688	164	82,519	89,371
Mar.	7,347	198	90,599	98,104
Apr.	6,821	195	88,592	95,608
May	6,960	191	92,531	99,682
June	6,720	173	88,049	94,942
July	6,132	185	74,283	80,600
Aug.	6,638	219	85,224	92,067
Sept.	6,195	163	78,934	85,292
Oct.	6,405	183	87,102	93,690
Nov.	6,498	150	81,984	88,632
Dec.	6,603	150	80,452	87,205
Ttl.	79,681	2,130	1,018,496	1,100,307
1957				
Jan.	6,607	172	86,170	92,949

Average Custom Smelters' Scrap Buying Prices

(Cents per pound for carload lots del. consumers' works)

	No. 1 Copper Scrap	No. 2 Copper Scrap	Light Copper Scrap	Refinery Brass*
1955				
Av.	37.035	35.535	33.59	32.70
1956				
Jan.	42.39	40.89	38.42	38.26
Feb.	43.35	41.85	39.35	38.65
Mar.	45.77	44.27	41.77	41.02
Apr.	41.65	40.15	37.65	38.15
May	36.06	34.56	32.06	32.50
June	33.32	31.82	29.32	29.03
July	32.69	31.19	28.69	28.98
Aug.	34.269	32.769	30.269	30.75
Sept.	33.56	32.06	29.81	29.92
Oct.	30.964	29.464	27.214	27.44
Nov.	30.51	29.01	26.76	27.50
Dec.	30.423	28.923	26.673	27.42
Av.	36.25	34.75	32.33	32.47
1957				
Jan.	29.30	27.80	25.55	26.30
Feb.	26.47	24.97	22.72	23.75
Mar.	26.58	25.08	22.83	24.52

*Of dry content for material having a dry copper content in excess of 60%.

Brass Ingot Makers' Scrap Copper Buying Prices

(Average Prices)

(Cents per pound del. refinery for 60,000 lbs. of each grade)

	No. 1 Copper Scrap	No. 2 Copper Scrap	No. 1 Composition	Heavy Yellow Brass
1955				
Av.	36.63	35.02	29.905	22.35
1956				
Jan.	42.39	40.89	35.22	24.51
Feb.	43.35	41.85	34.72	24.79
Mar.	45.77	44.27	36.46	27.76
Apr.	41.65	40.15	34.40	24.49
May	36.06	34.56	29.58	19.89
June	33.32	31.82	26.37	18.40
July	32.69	31.19	26.89	18.43
Aug.	34.269	32.769	29.833	20.463
Sept.	33.26	32.25	30.07	20.92
Oct.	30.687	29.187	28.058	19.538
Nov.	30.39	28.89	26.69	18.91
Dec.	30.195	28.695	27.50	18.96
Av.	36.17	34.67	30.483	21.34
1957				
Jan.	29.27	27.77	26.59	18.55
Feb.	26.47	24.97	23.50	16.65
Mar.	26.58	25.08	22.83	17.40

United States Lead Statistics of Primary Refineries

(American Bureau of Metal Statistics)
(In tons of 2,000 lbs.)

	Stock At Beginning	Production: Primary & Secondary	Total Supply	Stock At End	Domestic Shipments
1953	43,560	533,883	577,443	81,152	488,437
1954	81,152	551,618	632,770	92,719	475,551
1955					
May	54,956	45,435	100,391	50,947	46,130
June	50,947	48,150	99,097	44,665	44,985
July	44,665	23,850	68,515	39,856	26,547
August	39,856	36,912	76,768	34,111	41,469
September	34,111	50,453	84,564	30,753	46,250
October	30,753	53,747	84,500	29,913	52,062
November	29,913	52,623	82,536	28,855	51,370
December	28,855	50,448	79,303	31,089	48,171
Total	.....	547,153	639,872	.....	531,339
1956					
January	31,089	51,306	82,395	32,469	49,746
February	32,469	49,475	81,944	41,450	39,411
March	41,450	54,174	95,624	52,089	39,344
April	53,089	52,976	105,065	53,958	44,986
May	53,958	47,961	101,919	50,460	40,703
June	50,460	47,367	97,827	45,951	41,458
July	45,951	48,479	94,430	49,134	36,483
August	49,134	48,404	97,538	39,304	48,404
September	39,304	53,530	92,834	40,542	47,519
October	40,542	54,815	95,357	42,314	45,254
November	42,314	50,744	93,058	37,192	47,349
December	37,192	54,063	91,254	41,181	44,191
Total	....	613,293	644,382	....	529,484
1957					
January	41,181	50,854	92,035	42,905	40,549
February	42,905	47,912	90,817	48,599	37,517

In instances where the figures are not in balance it is due to shipments to other than domestic consumers.

Industrial Classification of Domestic Lead Shipments

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Cable	Amm.	Foil	Batt'y	Brass Making	Sundries	Jobbers	Unclassified
1951	70,149	32,099	2,063	75,337	5,583	48,248	3,550	259,155
1952	74,616	30,809	1,374	77,238	5,160	50,943	5,671	246,283
1953	76,283	34,415	2,136	80,389	5,716	55,936	6,390	227,222
1954								
Sept.	4,602	1,653	564	4,110	20	4,667	851	14,424
Oct.	6,142	1,970	657	4,172	383	4,581	829	17,573
Nov.	5,816	3,795	333	3,898	520	3,202	721	16,628
Dec.	7,707	1,880	100	5,790	141	3,530	906	16,963
Total	75,412	30,246	2,811	66,088	5,192	57,369	9,170	229,264
1955								
Jan.	7,044	1,570	36	5,158	213	4,451	857	21,122
Feb.	5,869	3,200	348	6,758	289	4,796	1,013	24,373
Mar.	6,538	2,340	614	6,897	240	3,807	1,167	20,778
Apr.	5,909	2,625	201	6,533	463	5,178	1,234	22,735
May	6,145	2,950	251	8,127	321	4,435	1,145	22,756
June	6,623	950	50	6,833	290	5,175	1,293	23,816
July	2,313	150	307	4,365	100	3,763	946	14,603
Aug.	5,772	2,800	210	4,794	290	3,741	1,230	22,632
Sept.	6,552	2,295	415	7,794	354	4,711	1,149	22,980
Oct.	6,772	3,026	85	9,819	564	4,899	1,287	25,610
Nov.	6,606	2,433	70	13,875	387	3,795	874	23,330
Dec.	6,275	3,260	35	7,508	449	4,289	839	25,516
Total	72,418	27,599	2,622	88,461	3,960	52,994	13,034	270,251
1956								
Jan.	7,777	3,075	200	6,555	290	8,538	917	22,394
Feb.	5,974	2,435	384	5,983	275	3,592	871	19,897
Mar.	6,786	1,300	101	4,903	321	3,915	1,331	20,687
Apr.	6,744	2,950	310	4,839	260	3,522	1,376	24,985
May	6,490	2,825	...	5,027	131	3,513	964	21,753
June	8,502	2,150	...	4,167	186	3,645	1,021	21,787
July	3,497	904	...	5,007	80	2,859	1,453	22,683
Aug.	7,712	1,497	85	6,334	713	4,443	1,262	26,358
Sept.	6,354	1,850	135	6,303	230	5,038	1,339	26,270
Oct.	7,988	1,715	135	7,108	286	4,955	1,493	21,574
Nov.	6,096	2,351	....	8,556	226	5,573	792	23,755
Dec.	6,440	1,449	85	5,832	160	7,258	394	22,573
Total	80,360	24,501	1,435	70,614	3,158	56,851	13,213	274,716
1957								
Jan.	5,297	2,800	200	6,886	671	4,002	1,191	19,502
Feb.	5,103	1,450	350	6,549	508	4,820	625	18,112

Lead Prices at New York

(Common Grade)
Monthly Average Prices
(Cents per pound)

	1954	1955	1956	1957
Jan.	13.26	15.00	16.16	16.00
Feb.	12.82	15.00	16.00	16.00
Mar.	12.94	15.00	16.00	16.00
Apr.	13.91	15.00	16.00	....
May	14.00	15.00	16.00	....
June	14.11	15.00	16.00	....
July	14.00	15.00	16.00	....
Aug.	14.06	15.00	16.00	....
Sept.	14.60	15.12	16.00	....
Oct.	14.975	15.50	16.00	....
Nov.	15.00	15.50	16.00	....
Dec.	15.00	15.56	16.00	....
Av.	14.06	15.14	16.013	....

Lead Sheet Prices

(To Jobbers, Full Sheets)
Monthly Average Prices
(Cents per pound)

	1954	1955	1956	1957
Jan.	18.26	20.00	21.66	21.50
Feb.	17.82	20.00	21.50	21.50
Mar.	17.94	20.00	21.50	21.50
Apr.	18.91	20.00	21.50	....
May	19.00	20.00	21.50	....
June	19.11	20.00	21.50	....
July	19.00	20.00	21.50	....
Aug.	19.06	20.00	21.50	....
Sept.	19.60	20.12	21.50	....
Oct.	19.975	20.50	21.50	....
Nov.	20.00	20.50	21.50	....
Dec.	20.00	20.56	21.50	....

Battery Shipments

The following table shows replacement battery shipments in the United States as compiled by the Business Information Division of Dun & Bradstreet, Inc., for the Association of American Battery Manufacturers:

(In thousands of units)

	1954	1955	1956	1957
Jan.	1,836	1,518	2,058	2,638
Feb.	1,461	1,691	1,340	1,955
Mar.	1,226	1,356	1,348	....
Apr.	1,180	1,315	1,368	....
May	1,429	1,614	1,761	....
June	1,883	1,842	1,807	....
July	2,350	2,078	2,178	....
Aug.	2,548	2,852	2,571	....
Sept.	2,800	3,120	2,711	....
Oct.	2,739	3,120	3,015	....
Nov.	2,475	2,697	2,592	....
Dec.	1,844	2,625	2,265	....
Total	23,771	25,828	25,014	....

Lead Stocks at Primary U. S. Smelters and Refiners

(American Bureau of Metal Statistics)

(In tons of 2,000 lbs.)

	In ore and matte and in process at smelters	— In base bullion (lead content) — At smelters & refineries	In transit to refineries	In process at refineries	Refined pig lead	Anti-monial lead	Total Stocks
1955							
Feb. 1	59,303	15,485	3,133	29,393	69,980	14,902	192,196
Mar. 1	64,492	17,741	3,781	28,467	52,734	12,204	179,419
Apr. 1	57,577	20,063	2,309	28,564	47,496	12,385	168,394
May 1	59,686	17,468	3,496	25,373	43,207	11,749	160,979
June 1	59,632	17,705	1,941	27,979	39,892	11,055	158,204
July 1	58,182	14,707	2,941	30,579	34,432	10,233	151,074
Aug. 1	65,476	10,065	1,303	26,792	30,077	9,779	143,492
Sept. 1	75,057	17,183	3,744	29,660	26,859	7,252	159,755
Oct. 1	70,628	19,083	4,217	28,424	23,292	7,461	153,105
Nov. 1	71,257	20,682	4,276	28,596	21,828	8,085	154,724
Dec. 1	64,109	20,232	4,377	27,486	19,592	9,263	145,059
1956							
Jan. 1	71,812	16,532	3,764	27,625	21,196	9,893	150,822
Feb. 1	70,690	19,082	1,764	25,632	24,080	8,389	149,637
Mar. 1	71,023	16,406	2,583	27,519	32,355	9,095	158,981
Apr. 1	72,358	15,655	2,152	28,065	41,800	10,289	170,319
May 1	74,837	15,500	2,718	24,181	43,268	10,690	171,194
June 1	78,987	15,477	2,475	26,682	39,558	10,902	174,081
July 1	81,796	15,837	4,423	28,505	36,499	9,452	176,512
Aug. 1	76,985	16,856	3,516	29 603	38,210	10,924	176,094
Sept. 1	81,634	18,529	2,874	29,991	29,230	10,074	172,332
Oct. 1	77,787	15,991	4,413	28,083	29,361	11,181	166,816
Nov. 1	78,253	12,022	3,083	25,783	30,932	11,382	161,485
Dec. 1	82,197	9,095	4,132	25,627	25,360	11,832	158,243
1957							
Jan. 1	77,918	12,222	2,846	25,092	29,435	11,746	159,249
Feb. 1	80,451	10,636	4,061	25,827	32,418	10,487	163,880
Mar. 1	81,274	11,880	4,394	25,728	38,479	10,120	171,875

Receipts of Lead in Ore and Scrap

By U. S. Smelters (a)

(American Bureau of Metal Statistics) (In tons of 2,000 lbs.)

	Receipts of lead in ore			Receipts of lead in scrap etc. (b)	Total receipts in ore, & scrap
	United States	Foreign	Total		
1952 Total	405,990	98,276	504,266	41,845	546,111
1953 Total	351,183	155,788	506,971	42,994	549,965
1954 Total	336,291	158,081	494,372	49,864	544,236
1955					
February	27,456	17,400	44,856	2,738	47,594
March	30,056	11,104	41,160	3,291	44,451
April	28,707	16,347	45,054	3,249	48,303
May	28,511	13,377	41,888	4,879	48,767
June	28,273	14,667	42,940	4,509	47,449
July	23,027	3,826	26,853	649	27,502
August	30,249	11,859	42,108	3,942	46,050
September	29,377	14,881	44,258	3,623	47,881
October	30,073	20,845	50,918	5,655	56,573
November	27,736	13,022	40,758	3,802	44,560
December	29,363	24,136	53,499	3,150	56,649
Total	341,595	172,966	514,561	42,996	557,557
1956					
January	27,184	15,704	42,888	6,346	49,234
February	28,569	16,528	45,097	4,577	49,674
March	31,568	17,904	49,472	3,989	53,461
April	31,786	15,224	47,010	4,252	51,262
May	32,715	18,476	51,191	4,711	55,902
June	31,546	16,251	47,797	4,541	52,338
July	29,964	13,476	43,440	3,207	46,647
August	31,112	20,726	51,838	5,885	57,723
September	28,731	16,276	45,007	3,351	48,358
October	33,614	12,350	45,964	5,439	51,403
November	30,553	14,308	44,861	5,141	50,002
December	31,154	15,095	46,252	4,536	50,788
Total	368,499	192,318	560,817	55,925	616,792
1957					
January	30,632	19,961	50,593	4,471	55,064
February	31,410	15,059	46,469	4,564	51,033

(a) Receipts of lead in ore are computed on the basis of recoverable lead. Owing to the estimational factor in this, which is probably on the low side, and also to the possibility that some lead receipts may escape attention, these monthly totals probably underrun the actual production of pig lead. (b) Inclusive only of scrap smelted in connection with ore, plus some scrap received by primary refiners.

N. Y. Lead Price Changes

(Effective Date)

1949		1953	
Nov. 16	12.50	Jan. 7	14.50
Nov. 21	12.00	Jan. 12	14.00
1950		Feb. 2	13.50
Mar. 9	11.00	Mar. 4	13.00
Mar. 14	10.50	Mar. 10	13.50
Apr. 20	10.75	Apr. 7	13.00
Apr. 26	11.00	Apr. 16	12.50
May 4	11.25	Apr. 21	12.00
May 10	11.50	Apr. 29	12.50
May 11	12.00	May 18	12.75
June 23	11.50	May 19	13.00
1951		May 26	13.15
June 28	11.00	June 11	13.50
July 12	11.50	July 20	13.75
July 13	12.00	July 23	14.00
Aug. 15	13.00	Sept. 16	13.50
Aug. 21	14.00	1954	
Sept. 1	15.00	Jan. 18	13.00
Sept. 8	16.00	Feb. 18	12.50
Oct. 2	**19.00	Mar. 9	12.75
Oct. 31	17.00	Mar. 10	13.00
1952		Mar. 26	13.25
Apr. 29	18.00	Mar. 29	13.50
May 2	17.00	Apr. 1	13.75
May 12	15.00	Apr. 12	14.00
June 23	15.50	June 2	14.25
June 24	16.00	June 15	14.00
Oct. 7	15.00	Aug. 25	14.25
Oct. 14	14.00	Sept. 7	14.50
Oct. 22	13.50	Sept. 15	14.75
Nov. 3	14.00	Oct. 4	14.875
Nov. 10	14.25	Oct. 5	15.00
Nov. 11	14.50	1955	
Nov. 20	14.25	Oct. 23	15.00-15.50
Nov. 24	14.00	Oct. 26	15.50
Dec. 22	14.25	Dec. 29	16.00
Dec. 29	14.50	1956	
Dec. 31	14.75	Jan. 4	16.50
		Jan. 13	16.00

**OPS Ceiling.

Antimonial Lead Stocks at Primary Refineries

(A.B.M.S.)

(In tons of 2,000 lbs.)

End of:	1954	1955	1956	1957
Jan.	14,691	14,902	8,389	10,487
Feb.	14,798	12,204	9,095	10,120
Mar.	11,985	12,385	10,289	....
Apr.	11,977	11,740	10,690	....
May	11,882	11,055	10,902	....
June	9,798	10,233	9,452	....
July	12,210	9,779	10,924	....
Aug.	12,279	7,252	10,074	....
Sept.	14,168	7,461	11,181	....
Oct.	14,846	8,085	11,382	....
Nov.	14,573	9,263	11,832	....
Dec.	14,789	9,893	11,746	....

Antimonial Lead Production by Primary Refineries

(A.B.M.S.)

(In tons of 2,000 lbs.)

End of:	1954	1955	1956	1957
Jan.	3,768	4,529	5,045	5,113
Feb.	4,257	4,777	5,888	5,368
Mar.	4,475	6,202	5,526	....
Apr.	4,470	5,343	5,818	....
May	4,373	4,737	5,405	....
June	3,796	4,792	4,456	....
July	5,991	1,153	3,853	....
Aug.	6,455	2,946	5,343	....
Sept.	5,869	6,650	6,709	....
Oct.	5,532	8,016	5,378	....
Nov.	5,364	7,985	6,993	....
Dec.	5,255	6,907	5,766	....
Total	59,875	64,037	66,180	....

U. S. Lead Consumption

(Bureau of Mines—In Short Tons)

	1956 Prelim. annual totals	1956 Dec.	1957 Jan.
Metal Products:			
Ammunition	44,238	2,980	3,022
Bearing metals	27,828	1,963	2,425
Brass and bronze	26,351	1,706	2,659
Cable covering	133,924	10,608	10,761
Calking lead	60,487	3,628	5,334
Casting metals	11,304	757	986
Collapsible tubes	10,155	607	831
Foil	4,552	351	343
Pipes, traps and bends	26,777	1,686	1,964
Sheet lead	29,674	2,058	2,215
Solder	72,015	6,097	6,435
Storage battery grids, posts, etc.	185,171	15,382	16,528
Storage battery oxides	180,960	15,164	17,637
Terne metal	1,719	208	136
Type metal	23,576	2,075	2,133
Total	838,731	65,270	73,409
Pigments:			
White lead	16,951	1,105	992
Red lead and litharge	78,905	6,325	6,453
Pigment colors	13,866	1,279	1,179
Other*	5,503	417	663
Total	115,225	9,126	9,287
Chemicals:			
Tetraethyl lead	191,990	11,594	14,793
Misc. chemicals	2,722	310	384
Total	194,712	11,904	15,177
Miscellaneous uses:			
Annealing	4,744	425	410
Galvanizing	1,512	117	128
Lead plating	693	51	34
Weights and ballast	6,040	390	446
Total	12,989	983	1,018
Other uses unclassified	16,316	1,384	1,546
Total reported	†1,177,973	†88,667	†100,437
Estimated unreported consumption	12,000	1,000	1,000
Grand total	†1,190,000	†89,700	†101,400
Daily average‡	3,251	2,894	3,271

* Includes lead content of leaded zinc oxide production.
† Includes lead content of scrap used directly in fabricated products.
‡ Based on number of days in month without adjustment for Sundays or holidays.

U. K. Lead Consumption

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 pounds)

	1955	1956	1957
Jan.	29,062	31,012	29,657
Feb.	28,926	30,125	29,219
Mar.	33,225	30,099	....
Apr.	28,656	28,186	....
May	31,092	29,752	....
June	32,627	31,501	....
July	26,994	26,963	....
Aug.	26,954	25,077	....
Sept.	34,291	30,274	....
Oct.	34,121	32,057	....
Nov.	34,820	32,036	....
Dec.	29,689	25,963	....
Total	370,794	353,045	....

American Antimony

Monthly Average Prices
In bulk, f.o.b. Laredo
(Cents per lb. in ton lots)

	1954	1955	1956	1957
Jan.	28.50	28.50	33.00	33.00
Feb.	28.50	28.50	33.00	33.00
Mar.	28.50	28.50	33.00	33.00
Apr.	28.50	28.50	33.00	....
May	28.50	28.50	33.00	....
June	28.50	28.50	33.00	....
July	28.50	28.50	33.00	....
Aug.	28.50	30.66	33.00	....
Sept.	28.50	33.00	33.00	....
Oct.	28.50	33.00	33.00	....
Nov.	28.50	33.00	33.00	....
Dec.	28.50	33.00	33.00	....
Aver.	28.50	30.18	33.00	....

Lead Imports and Exports By Principal Countries

(A. B. M. S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	Nov. 1956	Dec. 1956	Jan. 1957
IMPORTS			
U. S.† (s.t.)	28,503	40,630	31,410
Denmark	1,463	884	1,288
France	4,312	3,530	4,760
Germany, W.‡	2,810	...	...
Italy‡‡	1,361	...	..
Netherlands	2,615	...	...
Norway	779	256	...
Sweden	1,278	1,070	...
Switzerland	1,459	2,168	...
U. K. (l.t.)	14,508	19,865	16,257
India* (l.t.)	985	...	...
EXPORTS			
U. S.† (s.t.)	42	155	314
Canada (s.t.)	9,278	2,733	...
Denmark	70	199	119
France	49	142	81
Germany, W.‡	2,835	...	...
Italy‡‡	1	...	...
Netherlands	531	...	...
Switzerland	32	...	...
Northern Rhodesia* (l.t.)	1,425	806	...
Australia* (l.t.)	17,773	...	...

† Refined.
‡ Includes scrap.
‡‡ Includes lead alloys.
* British Bureau of Non-Ferrous Metal Statistics.

French Lead Imports

(A.B.M.S.)
(In metric tons)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore (gross weight)	7,986	6,370	7,533
Greece	1,070	...	...
Italy	342	...	...
Algeria	305	500	...
Morocco	5,269	5,870	6,533
French Equat. Africa	1,000	...	1,000
Pig lead	4,312	3,530	4,760
Belgium	...	20	410
Germany (West)	275	776	660
Algeria	21	...	3
Morocco	2,276	67	1,929
Tunisia	1,738	2,641	1,658
Other countries	2	26	100
Antimonial lead	...	12	12

Consumers' Lead Stocks, Receipts and Consumption

(Bureau of Mines — In Short Tons)

	Stocks Dec. 31, 1956*	Net Receipts In Jan.	Consumed In Jan.	Stocks Jan. 31, 1957
Soft lead	66,888	65,256	62,009	70,135
Antimonial lead	39,081	27,903	28,189	38,795
Lead in alloys	7,600	4,236	4,493	7,343
Lead in copper-base scrap	2,003	1,526	1,678	1,851
Total	115,572	98,921	†96,369	118,124

* Revised.
† Excludes 3,432 tons of lead which went directly from scrap to fabricated products and 636 tons of lead contained in leaded zinc oxide production.

Consumption of Lead by Class of Product

(Bureau of Mines — In Short Tons)

JANUARY

	Soft lead	Antimonial lead	Lead in alloys	Lead in Copper-base scrap	Total
Metal products	35,673	27,744	4,431	1,678	69,526
Pigments	9,276	11	....	....	9,287
Chemicals	15,172	5	....	....	15,177
Miscellaneous	690	143	....	....	833
Unclassified	1,198	286	62	....	1,546
Total	62,009	28,189	4,493	1,678	†96,369

† Excludes 3,432 tons of lead which went directly from scrap to fabricated products and 636 tons of lead contained in leaded zinc oxide production.

U. K. Lead Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2.240 lbs.)

	Dec. 1956	Jan. 1957	Feb. 1957
(Gross Weight)			
Lead and lead alloys	19,865	16,257	10,062
Australia	14,259	8,861	6,873
Canada	4,615	4,980	1,825
Belgium	...	900	100
Yugoslavia	150	250	600
Peru	600	651	650
Other countries	241	615	14

Domestic Zinc Statistics

American Zinc Institute

Commencing with January, 1948, all regularly operating U. S. primary and secondary smelters are included in this report. Production from foreign ores also is included.

(Tons of 2,000 lbs.)

	Stock Beginning	Production	Shipments — Domestic	Shipments — Export & Drawback	Shipments — Gov't Acc't	Shipments — Total	Stock at End	Unfilled Orders at End	Daily Avg. Prod.
1950 Tl.	94,221	910,354	849,246	18,189	128,256	995,691	8,884	74,795	2,494
1950 Mo. Avg.		75,863	70,770	1,516	10,688	82,974			
1951 Tl.	8,884	931,833	836,800	32,067	39,949	918,816	21,901	50,509	2,553
1951 Mo. Avg.		77,653	69,733	3,506	3,329	76,568			
1952 Tl.	21,901	961,430	803,343	56,202	36,626	896,171	87,160	45,264	2,627
1952 Mo. Avg.		80,119	66,945	4,683	3,052	74,681			
1953 Tl.	180,843	971,191	818,850	16,326	42,332	877,508	180,843	35,466	2,661
1953 Mo. Avg.		80,933	68,238	1,361	3,528	73,126			
1954									
Total	124,277	868,242	787,922	27,929	108,957	924,808	124,077	45,862	....
Monthly Avg.		72,353	65,660	2,327	9,080	77,067	.....	.....	2,379
1955									
Jan.	124,277	86,076	70,863	2,644	19,694	93,201	117,152	57,421	2,777
Feb.	117,152	78,977	80,016	3,743	16,205	99,964	96,165	54,527	2,820
Mar.	96,165	89,179	79,720	1,828	12,959	94,507	90,837	60,057	2,877
Apr.	90,837	83,786	89,589	1,967	8,488	100,044	74,597	65,127	2,793
May	74,579	86,177	83,336	3,802	10,434	97,572	63,184	70,087	2,780
June	63,184	84,458	92,212	1,492	5,335	99,039	48,603	57,231	2,815
July	48,603	84,400	76,812	862	4,039	81,713	51,290	64,056	2,723
Aug.	51,290	84,874	87,042	885	2,153	90,080	46,084	73,632	2,738
Sept.	46,084	83,448	83,664	1,274	2,427	87,365	42,167	52,278	2,781
Oct.	42,167	89,449	85,770	36	1,942	87,748	43,868	61,746	2,886
Nov.	43,868	86,616	91,585	280	1,561	93,426	36,058	64,560	2,921
Dec.	36,058	92,578	87,010	684	1,963	89,657	40,979	72,908	2,986
Total	40,979	1 031,018	1,007,619	19,496	87,200	1,114,316	40,979	72,908	....
Monthly Avg.		85,918	83,968	1,625	7,267	92,860			2,825
1956									
Jan.	40,979	90,313	87,723	1,084	1,155	89,962	41,330	60,717	2,913
Feb.	41,330	86,329	84,727	317	2,782	87,826	39,833	45,255	2,977
Mar.	39,833	91,690	84,204	460	6,821	91,485	40,038	53,070	2,958
Apr.	40,038	88,664	74,789	1,437	4,570	80,795	47,907	46,106	2,955
May	47,907	81,288	69,085	287	10,196	89,568	39,577	34,003	2,620
June	39,577	78,321	53,048	539	15,085	68,672	49,226	45,921	2,611
July	49,226	83,080	34,219	811	14,501	49,531	102,775	53,559	2,680
Aug.	102,775	89,549	70,707	1,235	16,075	88,017	104 307	55,769	2,889
Sept.	104,307	90,235	73,142	934	18,301	92.377	102.165	64,450	3,008
Oct.	102,165	93,493	84,991	465	21,392	106,848	88,810	53,425	3,016
Nov.	88,810	91,808	82,478	787	27,168	110,433	70,185	45,866	3,060
Dec.	70,185	98,234	80,772	671	18,354	99,797	68,622	34,913	3,169
Total		1,062,954	869,270	9,027	157,014	1,035,311			
Monthly Avg.		88,850	72,439	752	13,085	86,275			2,904
1957									
Jan.	68,622	93,452	67,273	450	15,377	83,100	78,974	42,922	3,014
Feb.	78,974	88,078	67,731	1,527	10,905	80,163	86,889	56,421	3,146
Mar.	86,889	96,715	67,097	1,558	25,608	94,263	89,341	56,818	3,120

U. S. Consumption of Slab Zinc

Bureau of Mines

By Industries (Short Tons)

	Galvanizers	Die Casters	Brass products	Rolled zinc	Zinc oxide & other	Total
1949 Total	348,544	197,387	84,257	55,100	17,643	702,931
1950 Total	434,094	281,385	136,451	67,779	27,656	947,365
1951 Total	386,373	266,442	141,456	64,000	28,738	887,009
1952 Total	375,563	236,022	155,311	51,508	30,885	849,289
1953 Total	403,162	305,346	177,301	53 784	38,037	977,636
1954						
Total	398,599	286,817	107,293	45,979	33,342	876,130
1955						
January	32,638	32,863	12,313	3,754	3,151	84,719
February	31,601	31,254	10,690	3,912	2,745	80,202
March	37,648	37,682	12,718	4,635	3,305	95,988
April	36,136	36,628	11,034	3,833	3,181	90,812
May	37,471	36,926	12,404	4,203	3,409	94,413
June	37,874	32,821	13,305	5,012	3,227	92,239
July	33,433	23,910	7,017	2,832	2,897	70,589
August	38,317	30,168	10,244	5,431	3,027	87,687
September	39,181	31,804	12,672	4,185	3,507	91,849
October	40,030	35,136	13,961	4,714	3,596	97,940
November	38,116	38,616	13,455	3,952	3,636	98,275
December	37,249	36,982	15,003	3,900	3,621	96,755
Total	439,694	404.790	144,816	50,363	39,302	1,081,468
1956						
January	38,148	36,554	13,097	4,442	3,665	95,906
February	37,702	31,274	12,678	3,883	3,325	88,862
March	38,662	31,332	12,889	4,433	3,566	90,882
April	37,092	29,226	12,635	4,010	3,359	86,322
May	38,064	26,003	12,218	3,431	1,260	80,976
June	37,005	21,790	8,351	3,454	1,315	71,915
July	12,960	21.425	5,193	2.187	2,883	45.648
August	33,840	26,814	8,420	4,222	2,959	76,255
September	37.313	26,998	8,370	3,397	3,280	79,358
October	40.875	34 985	10.164	4.158	3.695	93.877
November	36,767	32,812	9.581	3,625	3,539	87,224
December	32,790	33,238	8,799	3,140	3,405	82,272
Total	421,218	352,451	122,395	45,382	36,251	988,097
1957						
January	34,337	37,517	10,800	3,502	3,434	90,490

Prime Western Zinc Prices

(Cents per pound)

(In tons of 2,240 pounds)

	1954	1955	1956	1957
Jan.	9.76	11.50	13 46	13.50
Feb.	9.375	11.50	13.50	13.50
Mar.	9.66	11.50	13.50	13.50
Apr.	10.25	11.93	13.50	....
May	10.29	12.00	13.50	....
June	10.96	12.25	13.50	....
July	11.00	12.50	13.50	....
Aug.	11.00	12.50	13.50	....
Sept.	11.44	12.96	13.50	....
Oct.	11.50	13.02	13.50	....
Nov.	11.50	13.00	13.50	....
Dec.	11.50	13.00	13.50	....
Av.	10.69	12.305	13.497	....

High Grade Zinc Prices

(Delivered)

N. Y. Monthly Averages

(Cents per pound)

	1954	1955	1956	1957
Jan.	11.11	12.85	14.81	14.85
Feb.	10.725	12.85	14.85	14.85
Mar.	11.01	12.85	14.85	14.85
Apr.	11.60	13.28	14.85	....
May	11.64	13.35	14.85	....
June	12.31	13.60	14.85	....
July	12.35	13.85	14.85	....
Aug.	12.35	13.85	14.85	....
Sept.	12.79	14.31	14.85	....
Oct.	12.85	14.37	14.85	....
Nov.	12.85	14.35	14.85	....
Dec.	12.85	14.35	14.85	....
Av.	12.04	13.655	14.847	....

U. K. Zinc Consumption

British Bureau of Non-Ferrous Metal Statistics

(In Tons of 2,240 Pounds)

	1955	1956	1957
Jan.	29,192	29,779	28,485
Feb.	28,814	29,568	26,276
Mar.	33,451	28,650	.....
Apr.	27,741	25,348	.....
May	29,237	27,922	.....
June	31,467	26,650	.....
July	23,695	23,826	.....
Aug.	23,261	18,867	.....
Sept.	30,080	25,470	.....
Oct.	29,460	27,784	.....
Nov.	31,516	27,713	.....
Dec.	28,683	24,134	.....
Total	346,597	315,711	.....

Mine Production of Zinc in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1952				
Total	185,939	94,410	385,652	666,001
1953				
Total	183,612	57,300	293,818	534,730
1954				
Total	166,487	63,100	234,942	464,539
1955				
Sept.	13,830	5,834	22,490	42,154
Oct.	13,332	5,339	22,496	41,167
Nov.	12,676	5,532	21,347	39,555
Dec.	12,644	5,250	21,721	39,615
Total	163,230	73,630	277,811	514,671
1956				
Jan.	13,830	5,263	22,073	41,166
Feb.	13,975	5,236	23,506	42,717
Mar.	15,058	5,740	26,975	47,773
Apr.	14,172	5,098	25,618	44,888
May	14,834	5,557	26,840	47,232
June	13,730	5,228	26,135	45,093
July	13,028	5,364	24,571	42,963
Aug.	14,559	5,425	25,453	45,437
Sept.	13,567	4,628	23,785	41,980
Oct.	17,439	4,815	26,607	48,861
Nov.	15,604	4,566	25,279	45,449
Dec.	15,513	4,160	24,411	44,084
Total	175,310	61,080	301,253	537,643
1957				
Jan.	18,746	4,493	24,910	48,149

*Includes Alaskan output in some months.

Mine Production of Lead in United States

(U. S. Bureau of Mines)

(In short tons)

	Eastern States	Central States	Western States	Total U.S.*
1952				
Ttl.	11,252	150,302	228,607	390,161
1953				
Ttl.	9,970	136,650	188,776	335,412
1954				
Ttl.	8,608	138,940	169,804	317,352
1955				
Aug.	821	12,109	13,883	26,813
Sept.	906	11,676	14,294	26,876
Oct.	924	11,635	15,005	27,564
Nov.	762	11,731	13,482	25,975
Dec.	771	13,628	13,403	27,802
Ttl.	10,379	145,640	177,409	333,409
1956				
Jan.	895	11,633	14,294	26,822
Feb.	1,141	12,100	15,009	28,250
Mar.	1,202	13,232	16,516	30,950
Apr.	1,028	11,948	16,729	29,705
May	1,091	12,497	16,387	29,975
June	897	11,492	17,092	29,481
July	749	11,459	15,761	27,969
Aug.	879	12,760	16,991	30,630
Sept.	868	10,632	15,915	27,415
Oct.	879	12,698	17,843	31,520
Nov.	862	10,779	16,862	28,503
Dec.	804	10,670	15,635	27,109
Ttl.	11,395	141,900	195,034	348,329
1957				
Jan.	1,002	12,089	16,210	29,301

*Includes Alaskan output in some months.

Mine Production of Gold in United States

(U. S. Bureau of Mines)

(In fine ounces)

	Eastern States	Western States	Alaska*	Total
1952				
Ttl.	1,948	1,650,660	233,428	1,886,036
1953				
Ttl	1,529	1,689,668	273,479	1,964,676
1954				
Ttl.	1,731	1,577,216	252,794	1,831,741
1955				
Aug.	171	119,327	40,931	160,429
Sept.	170	139,811	52,153	192,134
Oct.	182	140,812	43,486	184,480
Nov.	168	144,837	35,530	180,535
Dec.	166	143,827	5,000	148,993
Ttl.	2,026	1,634,625	247,535	1,884,186
1956				
Jan.	121	132,919	1,977	135,017
Feb.	154	130,264	866	131,284
Mar.	198	134,331	62	134,591
Apr.	156	136,360	522	137,038
May	175	141,319	4,130	145,624
June	199	139,544	12,312	152,055
July	45	126,204	31,515	157,764
Aug.	178	136,827	45,452	182,457
Sept.	194	137,556	40,574	178,324
Oct.	194	129,424	35,901	165,519

*Alaska totals based on mint and smelter receipts.

Mine Production of Recoverable Silver in United States

(U. S. Bureau of Mines)

(In Fine Ounces)

	Eastern States	Missouri	Western States	Alaska*	Total
1953 Total	158,707	223,500	36,354,685	39,111	36,776,003
1954 Total	**142,180**	**283,600**	**36,121,368**	**35,140**	**36,582,288**
1955					
August	12,360	38,100	2,723,552	5,477	2,779,489
September	11,517	37,180	2,927,151	6,954	2,982,802
October	15,152	35,540	3,145,297	6,704	3,202,693
November	12,476	36,040	2,963,360	4,735	3,016,611
December	11,831	37,556	2,849,045	750	2,899,182
Total	159,038	438,000	36,103,723	33,804	36,734,565
1956					
January	4,664	30,880	2,869,878	316	2,911,551
February	**12,252**	**32,430**	**2,967,837**	**82**	**3,012,601**
March	16,536	34,370	3,243,598	11	3,294,515
April	6,918	32,050	3,212,308	61	3,251,337
May	13,870	33,300	3,081,054	545	3,128,769
June	11,758	30,610	3,103,654	524	3,147,546
July	17,069	31,160	2,702,563	4,116	2,754,908
August	11,073	35,180	3,243,126	6,322	3,295,701
September	12,111	28,700	2,879,687	5,664	2,926,162
October	7,696	34,540	3,122,958	4,942	3,170,136

*Alaska totals based on mint and smelter receipts.
**Includes a total of 3,708 oz. from Illinois.

Production of Primary Aluminum in the U. S.*

(U. S. Bureau of Mines)

(In short tons)

	1950	1951	1952	1953	1954	1955	1956	1957
Jan.	50,023	67,954	76,934	89,895	116,247	128,203	140,394	147,029
Feb.	54,493	62,740	72,374	92,649	110,483	116,236	132,763	119,064
Mar.	58,747	70,022	77,069	104,460	122,339	130,272	145,895	
Apr.	58,024	67,701	76,880	102,071	120,434	126,394	144,726	
May	51,929	67,720	80,803	105,464	125,138	131,128	150,800	
June	60,400	67,454	77,476	104,152	120,758	127,634	145,726	
July	63,518	72,698	78,368	109,285	126,161	132,669	151,624	
Aug	63,006	73,816	85,175	110,545	125,296	133,551	92,406	
Sept.	54,449	69,429	76,882	109,333	120,332	130,606	132,316	
Oct.	62,915	72,647	77,312	108,219	125,089	134,655	149,125	
Nov.	62,276	72,246	74,639	105,636	121,252	133,689	145,081	
Dec.	65,897	72,454	83,419	110,291	127,056	140,748	148,391	
Total	718,622	836,881	937,330	1,252,013	1,460,565	1,565,721	1,679,427	

*Based on producers' reports to War Production Board to July, 1946. Thereafter to Bureau of Mines. The monthly figures are preliminary in nature and will not add to the totals derived from the Bureau's annual industry canvass.

U. S. Silver Production*

(A.B.M.S.)

(In thousands of ounces; commercial bars, 0.999 fine, and other refined forms)

	Dom.†	For.	Total
1952 Total	40,245	36,653	76,898
1953 Total	34,697	37,764	72,461
1954 Total	38,059	39,422	77,481
1955			
September	2,840	2,855	5,695
October	2,432	3,889	6,321
November	3,087	2,775	5,862
December	3,180	3,652	6,832
Total	33,101	32,780	65,881
1956			
January	3,249	4,159	7,408
February	3,615	4,033	7,648
March	3,790	3,550	7,340
April	2,898	3,191	6,089
May	2,905	3,709	6,614
June	2,501	2,248	4,749
July	3,828	2,838	6,666
August	3,035	3,818	6,853
September	2,828	3,002	5,830
October	3,454	3,125	6,579
November	2,886	2,685	5,571
December	3,168	3,802	6,970
Total	38,157	40,160	78,317
1957			
January	2,997	2,877	5,874
February	2,925	2,876	5,801

* The separation between silver of foreign and domestic origin on the basis of refined bars and other refined forms is only approximate.
† Includes purchases of crude silver by the U. S. Mint.

Average Silver Prices

(Cents per fine ounce)

	1954	1955	1956	1957
Jan.	85.25	85.25	90.357	91.375
Feb.	85.25	85.25	90.90	91.375
Mar.	85.25	85.25	91.138	91.375
Apr.	85.25	87.08	90.875	
May	85.25	88.928	90.75	
June	85.25	89.71	90.46	
July	85.25	90.49	90.14	
Aug.	85.25	90.75	90.614	
Sept.	85.25	90.795	90.75	
Oct.	85.25	91.794	90.722	
Nov.	85.25	91.46	91.375	
Dec.	85.25	90.45	91.375	
Ave.	85.25	89.116	90.79	

Note — The averages are based on the price of refined bullion imported on or after August 31, 1943.

U. S. Copper Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Ore, matte & regulus (cont.)	122,155	9,962	12,462
Canada	24,715	1,834	3,038
Mexico	10,946	599	661
Cuba	15,378	886	2,044
Argentina	441	277	..
Bolivia	4,500	326	...
Chile	18,711	612	1,401
Peru	12,545	1,963	1,404
Cyprus	6,944	2,289	2,344
Philippines	10,912	1	409
U. of So. Africa	15,237	1,136	1,028
Australia	1,527	..	132
Other countries	299	39	1
Blister copper (cont.)	276,096	34,794	32,494
Canada	1,038	...	...
Mexico	37,411	2,860	3,383
Chile	175,891	29,954	22,133
Peru	14,294	...	1,697
Angola	1,085	...	...
Belgian Congo	4,346	..	...
Northern Rhodesia	13,462	..	3,613
U. of So. Africa	6,054	1,980	555
Turkey	5,585	...	...
Australia	16,930	...	1,113
Refined cathodes and shapes	191,079	15,419	13,496
Canada	93,852	8,891	8,357
Mexico	4,032	...	...
Chile	40,925	3,837	1,747
Peru	16,000	...	912
Belgium	769	...	...
Germany (West)	2,738	..	...
Norway	5,970	325	...
Sweden	224	...	...
United Kingdom	3,349	...	..
Yugoslavia	138	...	...
Belgian Congo	8,417	949	949
No. Rhodesia	13,865	1,417	1,531
Japan	800	...	...
Total Imports:			
Crude and refined	589,330	60,175	58,452
In rolls, sheets or rods	8,917	643	867
Old and scrap (cont.)	5,645	229	142
Composition metal (cont.)	92	35	...
Brass scrap and old (cu. cont.)	4,441	271	200

U. S. Zinc Exports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Ore, concentrates (cont.)	855	273	7
Slabs, blocks, etc.	8,815	413	496
Canada	3	...	..
Mexico	836	55	55
Cuba	87	...	...
Brazil	48	...	...
Chile	96	...	...
Belgium	1,988	280	...
Germany (West)	167	..	..
Netherlands	44	30	..
United Kingdom	5,040	...	336
Korea	433	22	30
India	2	..	..
Other countries	71	26	75
Total Exports:			
Ore, conc., slabs, blocks	9,670	686	503
Scrap: Ashes, dross and skimmings	12,694	521	424
Rolled in sheets, plates and strips (a)	5,575	511	375

(a) Includes photoengraving sheets and plates, alloys, ex brass and bronze, die castings, battery shells and parts unassembled, chromite zinc sheets, not elsewhere specified.

U. S. Copper Exports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Ore, conc., matte and other unref. (cont.)	5,350	736	1,223
Refined ingots, bars, etc. (a)	221,992	39,620	29,933
Canada	2,870	124	196
Brazil	8,358	1,444	403
Austria	295	...	...
Belgium	55	5	...
Denmark	457	448	...
France	59,968	4,678	3,319
Germany (West)	32,900	6,191	3,224
Italy	26,158	6,300	2,235
Netherlands	8,369	1,875	588
Norway	2,473	442	784
Sweden	1,825	453	...
Switzerland	15,092	2,321	920
United Kingdom	15,009	7,313	3,143
Yugoslavia	220	220	...
Formosa	969	...	...
India	15,835	2,265	1,287
Japan	29,431	4,816	13,627
Union of So. Africa	475	25	79
Australia	560	560	..
Other countries	673	142	128
Total exports:			
Crude and refined	227,342	40,356	31,156
Pipes and tubes*	2,437	161	117
Wire, bare	11,104	1,450	890
Building wire and cable (b)	3,726	366	261
Weatherproof wire (b)	865	64	113
Insulated copper wire n.e.s. (b)	13,842	920	1,117

(a) Includes exports of refined copper resulting from scrap that was reprocessed on toll for account of the shipper. (b) Gross weight; n.e.s. = not elsewhere specified. * Includes plates, sheets, rods, brush copper, castings, rolls, segments, (finished forms), n.e.s.

U. S. Copper Scrap Exports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Copper scrap, unalloyed* (new and old)	25,678	3,167	5,177
Canada	5,239	517	650
Belgium	176	...	8
France	142	27	191
Germany (West)	5,736	176	614
Italy	49	...	..
Netherlands	198	...	...
Switzerland	232	...	56
India	110	...	35
Japan	13,727	2,447	3,558
Other countries	69	...	65
Copper-base scrap, alloyed† (new & old)	50,484	6,386	7,947
Canada	491	...	2
Mexico	3	...	...
Austria	291	...	...
Belgium	144	...	33
Germany (West)	17,977	2,343	1,567
Italy	4,533	860	982
Netherlands	715	53	..
Spain	491	202	155
Switzerland	503	112	255
United Kingdom	693	293	458
India	2,165	186	322
Japan	22,147	2,309	4,110
Other countries	331	28	63

* Ash, brass mill, clippings, dross, flue dust, residues, scale, skimmings, wire scrap.
† Copper-base alloys, including brass and bronze — Ashes, clippings for remanufacture, cupro-nickel scrap, cupro-nickel trimmings, nickel silver scrap, phosphor bronze, phosphor copper, skimmings, turnings, round.

U. S. Lead Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Ore, matte, etc. (cont.)	196,513	15,465	22,653
Canada	30,690	1,566	4,871
Mexico	3,866	565	241
Guatemala	6,968	722	568
Honduras	2,970	417	198
Bolivia	17,177	2,373	949
Chile	118	...	...
Colombia	1,440	195	1
Peru	55,176	6,096	2,899
U. of S. Africa	44,208	3,317	5,274
Australia	31,043	...	7,366
Philippines	2,222	182	242
Korea	420	...	...
Other countries	215	32	44
Base bullion (content)	31	...	...
Canada	31	...	...
Pigs and bars	262,005	40,630	31,410
Canada	16,220	1,739	747
Mexico	77,542	9,660	12,870
Peru	33,140	5,100	2,154
Belgium	1,206	...	...
Denmark	1,388	...	168
France	661	...	...
Germany	168	...	...
Spain	6,698	28	...
United Kingdom	115	...	...
Yugoslavia	38,655	...	2,590
Morocco	5,428	...	...
Australia	80,673	24,103	12,881
Other countries	111	...	...
Total Imports:			
Ore, base bullion, ref.	458,549	56,095	54,063
Lead scrap, dross, etc. (cont.)	20,738	323	346
Antimonial lead & typemetal	9,531	692	466
Lead content thereof	8,512	674	414

U. S. Zinc Imports

(A.B.M.S.) (Bureau of the Census)
(In tons of 2,000 lbs.)

	Jan.-Dec. 1956	Dec. 1956	Jan. 1957
Zinc ore (content)	525,795	45,425	42,189
Canada	177,087	17,970	9,484
Mexico	193,007	16,260	16,627
Cuba	1,130	120	217
Guatemala	11,903	473	682
Honduras	2,291	161	132
Bolivia	7,293	616	2
Colombia	204	29	1
Chile	346	264	268
Peru	98,541	6,616	10,079
U. of So. Arfica	13,399	2,518	3,080
Australia	17,764	...	1,201
Philippines	828	22	36
Other countries	2,002	376	380
Zinc blocks, pigs, etc.	244,974	46,452	27,493
Canada	116,875	16,120	9,720
Mexico	17,154	2,930	3,596
Peru	6,599	299	449
Austria	2,294	110	83
Belgium	32,351	9,425	4,292
Germany (West)	15,285	5,169	1,322
Italy	13,487	2,403	716
Netherlands	5,965	2,426	1,056
Trieste	110	...	...
United Kingdom	610	...	560
Yugoslavia	500	...	826
Belgian Congo	17,356	2,271	2,574
Rhodesia	560	560	560
Australia	8,267	1,904	112
Japan	4,883	1,827	434
Other countries	2,688	1,008	1,193
Total Imports:			
Zinc ore, blocks, pigs	770,769	91,877	69,682
Dross and skimmings	455	57	154
Old and worn out	153	31	1

Comparative Metal Prices

	Av. 1939	OPA Av. 1946	1957 Apr. 15
Copper Domestic (Electro, Del. Valley)	11.20	14.375	31.00-32.00
Lead (N. Y.)	5.05	8.25	16.00
P. W. Zinc (E. St. Louis, f. o. b.)	5.05	5.05	13.50
New York, del	....	....	14.00
Tin, Spot Straits, N. Y.	...	...	99.625
Aluminum Ingot 99%+	20.00	15.00	27.10
Antimony (R.M.M. brand, f. o. b. Laredo)	12.36	14.50	33.00

World Production of Copper

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Canada (b)	Mexico (crude) (c)	Chile (d)	Peru (d)	Fed. Rep. of Germany (e)	Norway (f)	United Kingdom (g-h)	Yugoslavia (c)	India (f-h)	Japan (e)	Turkey (f)	Australia (c)	Northern Rhodesia (c)	Union of South Africa (d)
1951															
Total	964,539	269,971	60,511	396,937	25,495	234,647	.....	.....	.....	....	100,254	....	16,984	349,667	26,104
1952															
Total	961,886	258,868	60,874	422,498	22,640	206,747	11,206	163,968	36,176	7,009	104,060	2,546	21,119	336,883	37,459
1953															
Total	957,318	253,652	63,380	371,742	25,803	233,330	13,806	108,604	34,381	5,709	100,381	25,641	37,080	382,884	38,341
1954															
Total	863,721	302,984	59,030	372,814	29,233	258,259	14,205	152,858	33,394	8,274	117,371	27,727	42,241	386,577	43,153
1955															
Dec.	98,186	33,850	5,591	19,222	2,610	22,973	1,010	13,871	2,794	814	11,872	2,801	1,804	31,676	4,068
Total	1,036,702	326,599	61,583	447,288	35,478	286,805	14,876	138,271	31,151	8,432	124,908	26,313	41,935	350,302	47,176
1956															
Jan.	96,732	30,063	6,040	30,475	593	23,826	1,329	14,597	2,436	456	11,133	1,893	3,985	32,887	3,808
Feb.	89,326	26,867	4,965	37,420	2,492	21,106	1,259	11,437	1,872	792	11,029	2,477	4,331	33,545	2,924
Mar.	102,459	31,659	7,107	38,256	2,500	23,838	1,322	12,281	2,313	821	10,390	3,074	5,991	32,535	3,778
Apr.	98,578	27,804	6,436	39,731	2,474	22,593	1,402	8,154	1,660	761	9,927	2,355	5,443	30,789	3,196
May	101,422	29,422	5,801	39,954	2,612	23,134	1,418	10,217	3,103	755	11,923	2,443	4,477	33,577	4,835
June	98,496	29,097	5,614	36,812	2,412	23,920	1,413	9,715	3,018	687	12,490	2,628	4,461	33,640	4,461
July	84,787	31,141	5,109	40,880	2,602	24,383	1,186	12,223	3,197	740	12,570	1,044	4,589	33,279	3,090
Aug.	91,282	28,719	5,357	44,202	2,523	24,006	1,251	6,733	3,323	782	12,443	1,584	4,841	33,720	4,715
Sept.	88,659	31,196	5,609	41,475	..	24,022	1,510	11,281	3,028	785	12,015	2,298	4,207	26,917	4,307
Oct.	95,109	29,977	6,488	47,346	....	24,405	1,733	11,127	3,020	757	12,477	2,754	4,497	42,381	4,868
Nov.	90,573	29,837	5,871	46,407	..	22,156	1,344	11,426	2,733	702	10,648	2,717	5,252	38,800	4,170
Dec.	92,231	30,422	5,521	44,911	838	21,939	1,293	9,174	2,687	786	11,993	2,064	4,707	38,892	....
1957															
Jan.	94,873	....	5,592	44,697	2,276	21,982	....	11,528	....	....	12,493	....	4,047	36,360	....
Feb.	92,242	....	4,630	....	2,185	....	....	....	....	....	12,868	....	....	....	....

(a) Reported by Copper Institute. Crude, "recoverable contents of mine production or smelter production or shipments, and custom intake". Does not include intake of scrap nor of imported ore except that received from Cuba and Philippines. (b) Blister copper plus recoverable copper in concentrates, matte, etc., exported. (c) Crude copper, i. e., copper content of blister or converter copper as originally produced in the several countries, although some of it may be refined at home; e. g., in Rhodesia. (d) Blister and/or refined. (e) Refined. There are quantities of scrap included in the electrolytic production in addition to that reported, tonnage of which is not obtainable. (f) Smelter production. (g) Refinery production from imported blister only. (h) British Bureau of Non-Ferrous Metal Statistics. *Refined.

World Production of Refined Lead

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States	Canada	Mexico	Peru	Belgium	France	Fed. Rep. of Germany	Italy	Spain	Yugoslavia	Japan	Australia (a)	French Moroco	Tunisia	Rhodesia	Total
1951																
Total	486,874	162,712	219,352	48,824	77,873	53,831	170,766	39,683	45,460	.....	18,516	217,301	20,287	25,476	15,646	1,602,691
1952																
Total	532,778	183,389	248,551	53,536	83,139	59,607	152,751	38,504	46,060	74,053	20,382	217,293	31,224	28,264	14,112	1,783,648
1953																
Total	538,883	166,356	225,075	66,520	84,162	60,887	164,077	40,786	53,799	78,038	25,513	241,419	29,970	30,397	12,891	1,813,773
1954																
Total	551,618	166,379	231,595	63,735	79,260	71,033	162,773	41,150	62,475	73,555	37,612	260,424	29,417	30,915	16,800	1,877,841
1955																
Nov.	52,623	12,587	17,576	5,473	8,468	5,891	17,503	3,741	6,133	7,799	3,785	18,820	....	2,535	1,456	164,390
Dec.	50,448	12,553	18,637	7,038	8,030	6,730	16,806	4,031	5,267	7,208	3,946	21,113	1,414	3,790	1,456	168,467
1956																
Jan.	51,306	12,179	17,587	1,730	8,731	7,014	16,218	3,722	5,399	6,210	3,929	24,196	4,967	2,070	1,456	167,374
Feb.	49,475	11,469	16,510	6,497	9,446	6,241	15,743	3,688	5,202	4,708	4,239	16,392	4,572	1,307	1,232	157,173
Mar.	54,174	12,438	17,376	6,142	9,338	6,883	14,562	3,164	5,319	7,187	4,009	19,535	3,505	2,500	1,680	167,740
Apr.	52,976	11,554	15,186	6,790	8,650	6,276	14,398	3,799	6,118	7,159	4,136	17,407	2,056	2,273	1,456	161 369
May	47,961	11,990	17,611	6,970	9,188	6 814	14.022	4,511	5,660	5,786	4,142	15,984	798	2,372	1,456	156,551
June	47,367	11,591	18,091	6,779	9,481	6,704	14,302	3,100	4,767	7,286	3,972	19,664	....	2,064	1,456	157,830
July	48,479	12,374	18,515	6,415	9,965	6,377	12,165	3 887	5,195	7,827	4,202	27,935	2,876	1,841	1,456	170,426
Aug.	48,404	12,196	18,890	6,192	9,372	1,896	11,586	2.440	4.724	7.546	4,126	19.757	4.151	1,933	1.400	155,665
Sept.	53,530	12,706	18,567	6,378	9,213	6,071	13,671	2,833	5,962	6,182	4,614	23,654	3,630	2,970	1,344	172,788
Oct.	54,815	13,923	20,169	2,237	9,243	7,212	16,873	4,600	6,002	8,237	4,271	26,243	2,490	2,389	1,400	181,423
Nov.	50,744	12,914	17,934		9,312	7,883	17,679	3,319	5,343	7,632	4,494	23,220	...	2,180	1,232	165,282
Dec.	54,062	..	17,088	5,787	9,540	1,797	17,094	3,667	....	7,747	4,885	22,263	1,948	2,724	1,344	.....
1957																
Jan.	50,854	....	19,212	5,676	....	8,084	16,540	3,196	....	....	4,928	....	4,052	1,261	1,344	.....
Feb.	47,912	...	18,212	5,736	....	....	....	....	....	....	4,836	....	....	....	1,232	.....

(a) Production credited to Australia includes lead refined in England from Australian base bullion.

World Production of Slab Zinc

(American Bureau of Metal Statistics)

(In Tons of 2,000 Pounds)

	United States (a)	Can. (b)	Mexico	Peru (b-c)	Belgium	France (a)	Fed. Rep. of Germany	Great Britain	Italy	Netherlands	Norway (b)	Spain	Yugoslovia	Japan (a)	Australia (b)	Rhodesia (b)	Total (d)
1951																	
Total	931,833	218,548	57,990	1,003	220,479	82,184	155,024	78,101	52,058	24,924	44,971	23,444	....	62,109	88,103	25,301	2,065,216
1952																	
Total	961,430	223,140	61,456	5,491	205,909	88,255	162,272	76,981	60,433	28,555	43,061	23,329	15,943	77,203	97,931	25,687	2,141,089
1953																	
Total	971,191	247,707	59,589	9,819	213,215	89,215	163,430	81,436	65,730	27,721	42,566	24,152	16,037	86,833	101,003	28,370	2,228,917
1954																	
Total	868,242	218,810	60,477	16,982	234,896	122,248	184,806	90,987	74,356	28,686	48,768	25,109	15,040	112,292	117,066	29,736	2,243,501
1955																	
Dec.	92,578	21,135	5,252	....	20,079	10,332	17,061	9,316	6,420	2,886	4,492	2,258	1,147	11,654	9,972	2,632	220,043
Total	1,031,018	257,008	61,879	18,943	233,623	123,623	197,024	90,917	77,761	31,202	49,724	26,244	15,175	122,965	113,221	31,248	2,533,879
1956																	
Jan.	90,313	21,696	5,279	....	20,359	11,756	16,827	6,768	6,315	2,786	4,845	2,219	1,146	15,928	9,753	2,632	222,200
Feb.	86,239	20,356	4,949	963	20,589	9,911	15,598	7,684	5,799	2,777	3,961	2,038	1,144	10,337	8,982	2,688	208,693
Mar.	91,690	22,010	5,333	1,980	20,710	9,491	16,839	9,351	6,355	2,853	4,331	2,166	1,236	11,702	9,572	2,688	224,227
Apr.	88,664	21,339	5,207	1,220	20,687	10,819	16,689	7,382	6,613	2,693	4,002	2,172	1,222	13,806	9,243	2 688	218,363
May	81,238	21,790	5,248	1,225	21,300	11,174	17,212	6,719	7,190	2,662	4,168	2,226	1,289	13,401	10,012	2,688	214,194
June	78,321	20,780	5,142	1,439	21,030	11,003	16,898	8,857	6,270	2,530	4,427	2,175	1,282	12,466	8,606	2,632	208,635
July	83,080	21,691	5,198	1,285	21,015	10,679	17,964	6,617	6,433	2,637	4,688	2,047	1,325	13,089	11,141	2,800	216,200
Aug.	89,549	21,354	5,154	1,427	20,996	10,846	17,633	6,925	6,995	2,543	4,826	1,915	1,420	12,385	10,032	2,464	221,801
Sept.	90,235	20,691	5,018	....	21,207	10,210	17,187	9,130	6,817	2,452	4,487	1,918	1,287	12,674	9,866	2,744	220,868
Oct.	93,493	21,412	5,257	.....	21,153	8,871	17,428	6,773	7,334	2,718	4,743	2,110	1,244	13,497	10,171	2,800	224,159
Nov.	91,808	20,470	5,060	....	21,044	9,257	16,851	6,443	7,037	2,727	4,538	2,087	1,414	12,717	9,810	2,716	.....
Dec.	92,234	22,012	5,291	880	21,816	10,088	17,835	8,135	7,249	2,745	4,654	....	1,425	11,819	10,257	2,856	.....
1957																	
Jan.	93,452	20,340	5,357	1,560	....	11,464	17,700	6,360	6,944	....	4,424	....	....	....	....	2,856	.....
Feb.	87,974	19,808	4,788	2,346	....	....	....	6,256	....	....	3,851	....	....	....	....	....	.....

(a) Partially electrolytic. (b) Entirely electrolytic. (c) Beginning 1954 both electrolytic and electrothemic. (d) The above totals omits production in Russia, Czechoslovakia, Poland and in Argentina.

U. K. Virgin Copper Stocks

(In long tons)

British Bureau of Non-Ferrous Metal Statistics

At start of:	1955	1956	1957
Jan.	61,480	76,197	59,614
Feb.	62,771	79,377	59,203
Mar.	70,185	71,634	62,120
Apr.	67,566	73,776	....
May	60,767	76,481	....
June	58,546	71,713	....
July	64,256	76,188	....
Aug.	99,628	68,197	....
Sept.	107,261	72,069	....
Oct.	93,681	62,327	....
Nov.	75,533	58,893	....
Dec.	77,749	55,838	....

U. K. Refined Lead Stocks

(British Bureau of Non-Ferrous Metal Statistics)

(In long tons)

At start of:	1955	1956	1957
Jan.	31,173	40,987	39,420
Feb.	32,274	34,326	41,433
Mar.	39,461	29,693	36,900
Apr.	37,587	33,974	....
May	45,226	29,479	....
June	38,760	30,537	....
July	30,816	37,088	....
Aug.	32,270	35,432	....
Sept.	48,036	35,793	....
Oct.	42,912	39,391	....
Nov.	42,061	32,662	....
Dec.	38,410	32,025	....

U. K. Stocks of Zinc

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

At start of:	Virgin Zinc 1956	Virgin Zinc 1957	Zinc. Conc. 1956	Zinc. Conc. 1957
Jan.	49,962	44,816	54,447	53,274
Feb.	45,239	40,501	49,537	63,366
Mar.	44,288	38,927	48,667	59,957
Apr.	49,194	....	40,502	....
May	49,129	....	36,524	....
June	47,266	....	40,136	....
July	47,644	....	40,763	....
Aug.	49,169	....	47,972	....
Sept.	51,946	....	57,125	....
Oct.	50,978	....	55,354	....
Nov.	47,364	....	54,376	....
Dec.	46,364	....	55,223	....

U. K. Copper Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	Jan.-Dec. 1955	Jan.-Dec. 1956	Dec. 1956
(Gross Weight)			
Copper and copper alloys	411,520	403,097	38,853
U. of S. Africa	1,464	1,641	...
N. Rhodesia	216,235	233,161	20,059
Canada	65,831	60,502	6,484
Belgium	6,898	4,925	510
Germany, W.	7,881	1,807	9
Norway	2,823	491	...
United States	29,491	9,768	2,105
Chile	60,497	76,704	9,380
Peru	5,675	2,642	50
Belg. Congo	5,075	7,700	250
Other countries	9,650	3,756	6
Of which:			
Electrolytic	255,344	259,129	26,480
Other refined	31,079	34,481	3,600
Blister or rough	121,854	106,724	8,712
Wrought and alloys	3,243	2,763	61
Total	411,520	403,097	38,853

Copper Consumption in United Kingdom

British Bureau of Non-Ferrous Metal Statistics

(In tons of 2,240 pounds)

	Unalloyed	Alloyed*	Total	Virgin	Scrap
1953 Total	243,717	192,337	447,260	322,311	124,949
1954 Total	328,149	251,989	580,138	448,413	131,725
1955 Total	377,576	281,953	659,529	496,467	163,062
1956					
January	34,567	24,461	59,028	45,676	13,352
February	33,213	24,163	57,376	40,934	16,442
March	32,903	24,366	57,269	43,913	13,356
April	27,489	21,029	48,518	36,418	12,100
May	29,845	22,295	52,140	41,747	10,393
June	33,774	21,810	55,584	43,622	11,962
July	31,752	19,316	51,086	39,149	11,919
August	24,426	14,434	38,860	30,065	8,795
September	35,203	19,584	54,787	45,807	8,980
October	36,824	21,275	58,099	47,814	10,285
November	38,244	21,142	59,386	47,144	12,242
December	29,927	17,437	47,364	38,505	8,859
Total	388,167	251,312	639,479	500,794	138,685
1957					
January	40,014	21,574	61,588	51,118	10,470
February	36,191	19,849	56,040	43,326	12,714

*Includes copper sulphate effective October, 1954.

U. K. Zinc Imports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	Dec. 1956	Jan. 1957	Feb. 1957
(Gross Weight)			
Zinc ore and concentrates	22,644	30,193	3,167
Zinc conc.†	8,404	17,397	‡
Australia	7,107	12,883	...
Canada	....	3,546	...
Italy	1,297	968	...
Zinc and zinc alloys	8,175	10,017	10,948
N. Rhodesia	....	150	200
Australia	220	...	...
Canada	3,161	4,791	4,627
Belgium	1,269	2,712	2,340
Germany (W.)	1	151	901
Netherlands	300	85	113
Norway	300	...	...
United States	300	300	300
Other countries	2,624	1,828	2,467
Of which:			
Zinc or spelter, unwrought in ingots, blocks, bars, slabs and cakes	8,160	10,017	10,948
Other	15	...	...
Total	8,175	10,017	10,948

† British Bureau of Non-Ferrous Metal Statics. The estimated zinc content is not the content of the gross weight as officially reported for any comparable period.
‡ Not available.

Zinc Imports and Exports By Principal Countries

(A. B. M. S.)

Reported in pigs, bars, etc.; metric tons except where otherwise noted.

	Nov. 1956	Dec. 1956	Jan. 1957
IMPORTS			
U. S. (s.t.)	27,580	46,452	27,493
Denmark	229	596	418
France	245	1,071	532
Germany, W. †	4,072	...	...
Italy	631	...	...
Netherlands	1,275	...	...
Sweden	2,698	2,060	...
Switzerland†	1,159	2,208	...
U. K. (l.t.)	12,865	8,175	10,017
India* (l.t.)	1,690	...	...
EXPORTS			
U. S. (s.t.)	1,091	413	496
Canada (s.t.)	21,411	16,125	...
Denmark	...	68	39
France	...	52	65
Germany, W.†	4,318	...	...
Italy	2,117	...	...
Netherlands	684	...	...
Norway	3,128	4,529	...
Switzerland†	322	484	...
U. K.‡ (l.t.)	519	318	353
Northern Rhodesia* (l.t.)	2,689	2,900	1,971
Australia* (l.t.)	3,320	...	...

† Includes scrap.
‡ Includes manufactures.
* British Bureau of Non-Ferrous Metal Statistics.

United Kingdom Tin Statistics

(British Bureau of Non-Ferrous Metal Statistics)

	Tin Content of Tin in Ore: Imports	Tin Content of Tin in Ore: Production*	Tin Content of Tin in Ore: Stock at end of period*	Tin Metal: Imports	Tin Metal: Production*	Tin Metal: Consumption	Tin Metal: Exports & Re-exports	Tin Metal: Stock at end of period
1955 Total	27,084	1,084	2,181	1,227	27,241	22,390	8,924	2,999
1956								
January	1,548	110	1,194	14	2,493	1,881	704	3,236
February	2,695	88	2,384	129	1,769	2,082	793	2,671
March	2,526	94	2,705	730	2,452	1,825	237	3,804
April	2,045	76	2,341	155	1,924	1,692	475	3,633
May	1,650	81	1,861	39	2,455	2,301	1,013	3,433
June	1,647	74	1,240	69	2,860	1,803	457	3,424
July	3,100	111	2,240	173	2,082	1,854	405	3,460
August	2,691	48	2,713	20	1,931	1,577	533	3,784
September	934	83	1,277	247	2,575	1,903	1,153	3,274
October	3,396	101	2,561	73	2,272	2,223	953	2,737
November	2,034	88	2,308	445	2,293	1,997	511	3,436
December	2,305	91	2,393	131	2,118	1,649	686	3,175
1956 Total	26,571	1,044	2,393	2,226	26,434	22,232	8,371	3,175
1957								
January	3,584	....	....	25	2,519	2,134	863	2,878

*As reported by International Tin Study Group. Production of Tin Metal includes production from imported scrap and residues refined on toll. Stocks exclude strategic stock but include official warehouse stocks.

Canada's Copper Output

(Dominion Bureau of Statistics)

(Refined Copper)
(In Tons)

	1954	1955	1956	1957
Jan.	15,001	22,600	26,653	25,469
Feb.	13,954	21,455	26,229	....
Mar.	21,075	25,083	26,750	....
Apr.	20,412	24,077	26,617	....
May	23,012	23,840	27,626	....
June	23,344	21,890	27,122	....
July	21,582	21,185	27,250	....
Aug.	22,000	26,184	29,219	....
Sept.	22,684	24,752	27,950	....
Oct.	21,661	25,546	29,696	....
Nov.	22,981	25,213	27,346	....
Dec.	24,935	27,172	28,716	....
Year	252,643	288,987	331,174	....

Canada's Lead Exports

(Dominion Bureau of Statistics)

(In Pigs)
(In Tons)

	1953	1954	1955	1956
Jan.	11,212	6,170	5,500	4,888
Feb.	8,710	7,560	11,882	3,856
Mar.	14,943	11,092	10,318	4,007
Apr.	14,765	9,606	11,967	7,636
May	7,039	11,483	6,416	7,214
June	13,434	12,018	9,897	6,632
July	1,357	13,152	8,341	9,696
Aug.	8,869	8,646	4,884	4,713
Sept.	3,903	10,045	5,538	9,908
Oct.	7,532	8,005	8,053	9,072
Nov.	6,581	10,817	4,622	9,227
Dec.	4,354	7,815	5,286	2,734
Year	102,879	116,406	92,407	79,633

Canada's Silver Exports

(Dominion Bureau of Statistics)

(In ores and concentrates)
(Fine Ounces)

	1954	1955	1956
Jan.	547,951	429,704	435,047
Feb.	567,225	457,261	196,803
Mar.	849,502	411,597	328,857
Apr.	572,059	493,578	348,838
May	660,724	445,054	447,710
June	682,906	592,238	495,742
July	1,210,045	285,350	686,209
Aug.	953,379	644,932	1,080,301
Sept.	605,188	636,992	481,042
Oct.	612,874	684,301	731,099
Nov.	606,274	387,147	669,285
Dec.	804,213	405,719	1,023,481
Year	8,672,340	5,873,873	6,924,414

Canada's Copper Exports

(Ingots, bars, slabs and billets)
(In Tons)

	1954	1955	1956	1957
Jan.	9,081	11,078	15,981	20,582
Feb.	8,385	12,897	11,041	....
Mar.	11,671	12,423	12,276	....
Apr.	11,218	10,321	14,476	....
May	18,407	10,911	12,851	....
June	14,877	13,387	10,985	....
July	15,467	12,674	13,599	....
Aug.	14,158	13,219	14,710	....
Sept.	14,069	13,479	17,268	....
Oct.	11,528	14,208	13,896	....
Nov.	13,372	14,545	19,130	....
Dec.	13,897	14,057	18,630	....
Year	156,130	153,199	174,843	....

Canada's Zinc Output

(Dominion Bureau of Statistics)

(Refined Zinc)
(In Tons)

	1953	1954	1955	1956
Jan.	18,370	17,155	22,028	21,696
Feb.	18,677	15,199	19,865	20,356
Mar.	20,693	16,550	22,215	22,010
Apr.	20,003	16,249	21,301	21,339
May	20,090	16,530	21,599	21,790
June	20,589	17,017	20,565	20,780
July	21,595	17,917	21,769	21,691
Aug.	21,703	18,755	22,029	21,354
Sept.	21,157	18,023	20,898	20,691
Oct.	21,888	18,871	22,206	21,412
Nov.	21,051	19,662	21,398	20,470
Dec.	21,899	21,922	21,135	22,012
Year	247,707	213,810	257,008	255,601

Canada's Silver Output

(Dominion Bureau of Statistics)

(In Ounces)

	1954	1955	1956
Jan.	2,603,593	2,182,386	2,280,575
Feb.	2,068,740	1,960,506	2,094,467
Mar.	2,352,392	2,413,591	2,296,648
Apr.	2,745,615	2,304,287	1,759,384
May	2,564,919	2,235,620	2,463,374
June	2,769,694	2,461,675	2,494,748
July	2,717,859	2,385,654	2,267,271
Aug.	2,840,385	2,480,607	2,315,312
Sept.	2,804,384	2,386,385	2,517,451
Oct.	2,461,823	2,371,890	2,379,162
Nov.	2,823,719	2,088,991	2,429,547
Dec.	2,364,826	2,388,627	2,357,202
Year	31,117,949	27,696,319	27,655,141

Canada's Lead Output

(Dominion Bureau of Statistics)

(Recoverable Lead)*
(In Tons)

	1953	1954	1955	1956
Jan.	19,502	17,716	18,959	16,002
Feb.	16,888	16,863	15,018	14,344
Mar.	14,183	17,104	19,113	16,857
Apr.	18,640	19,452	17,889	11,573
May	16,120	19,953	16,808	15,446
June	15,302	18,988	17,800	18,145
July	11,969	19,164	16,650	15,841
Aug.	13,864	18,237	16,676	16,104
Sept.	14,335	17,066	15,972	15,760
Oct.	16,327	16,569	13,658	16,725
Nov.	19,433	18,365	15,182	14,865
Dec.	19,273	19,093	17,857	16,056
Year	195,836	219,280	201,583	188,971

*New base bullion from Canadian ores plus recoverable lead in ores or concentrates shipped for export.

Canada's Zinc Exports

(Dominion Bureau of Statistics)

(Slabs in Tons)

	1953	1954	1955	1956
Jan.	17,478	16,625	22,181	15,550
Feb.	13,580	11,328	25,556	11,757
Mar.	18,307	18,199	20,178	8,822
Apr.	17,068	17,926	21,018	14,317
May	15,595	13,926	14,820	11,357
June	14,919	15,654	19,581	15,296
July	10,068	27,582	13,522	15,499
Aug.	8,591	14,934	16,581	13,070
Sept.	9,423	17,298	11,793	19,732
Oct.	11,862	13,064	19,836	20,792
Nov.	10,685	16,224	14,164	21,411
Dec.	10,809	23,277	14,607	16,125
Year	158,388	206,037	213,837	183,728

Canada's Nickel Output

(Dominion Bureau of Statistics)

(In Tons)

	1954	1955	1956	1957
Jan.	12,765	14,387	14,985	16,554
Feb.	11,874	13,375	14,997	....
Mar.	13,619	15,544	15,504	....
Apr.	13,015	15,011	14,431	....
May	13,458	15,352	15,203	....
June	13,269	14,835	14,492	....
July	12,901	14,530	15,125	....
Aug.	13,428	14,825	14,852	....
Sept.	13,521	13,734	14,530	....
Oct.	14,323	14,411	15,762	....
Nov.	14,159	14,290	15,062	....
Dec.	14,947	14,881	14,824	....
Year	161,279	175,173	178,767	....

Canadian Copper Exports

(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore, matte, regulus, etc. (content)	2,439	4,666	2,775
United States	1,638	3,139	1,401
Belgium	55	...	24
Germany (W.)	...	...	30
Norway	636	1,404	1,201
U. Kingdom	110	123	61
Netherlands	...	...	58
Ingots, bars, billets, anodes	19,130	18,630	20,582
United States	8,085	9,392	8,211
Brazil	3	220	364
Denmark	...	...	1
France	1,508	1,008	698
Switzerland	...	...	481
U. Kingdom	7,772	8,008	8,888
Australia	...	...	560
India	1,762	...	1,370
Other countries	..	2	9
Total Exports:			
Crude & refined	21,569	23,296	23,357
Old and scrap	1,734	1,150	1,736
Rods, strips, sheet & tubing	1,189	516	1,034

Canadian Zinc Exports

(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore (zinc content)	18,137	17,491	13,883
United States	13,517	17,491	9,307
Belgium	1,337	...	...
France	..	...	546
Norway	3,283	...	...
U. Kingdom	...	...	4,030
Slab zinc	21,411	16,125	19,304
United States	14,752	14,025	10,286
Brazil	3	...	...
U. Kingdom	6,637	2,100	9,018
Taiwan	18	..	...
Other countries	1	...	...
Total Exports:			
Ore and slabs	39,548	33,616	33,187
Zinc scrap, dross, ashes	662	387	1,260
United States	123	110	51
Belgium	102	116	...
Germany (W.)	53	86	31
Netherlands	384	75	1,025
Japan	..	...	153

Canadian Lead Exports

(Dominion Bureau of Statistics)

(In tons of 2,000 lbs.)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore (lead content)	2,841	4,568	3,194
United States	1,438	4,568	1,798
Belgium	1,403	...	620
Germany (W.)	...	...	776
Refined lead	9,278	2,733	8,946
United States	1,582	1,316	847
Brazil	...	220	111
Venezuela	49	...	...
U. Kingdom	5,886	65	5,320
Japan	1,702	1,132	2,627
Taiwan	6	...	...
Other countries	53	...	41
Total Exports:			
Ore and refined	12,119	7,301	12,140
Pipe and tubing	1	2	...
Lead scrap	...	4	46

Copper Imports and Exports By Principal Countries

(A. B. M. S.)

Reported in ingots, slabs, etc.; metric tons except where otherwise noted.

IMPORTS

	Nov. 1956	Dec. 1956	Jan. 1957
U. S. (blist., s.t.)	18,803	34,794	32,494
(ore, etc., s.t.)	7,526	9,962	12,462
(ref., s.t.)	14,344	15,419	13,496
Denmark	292	438	551
France (crude)	813	1	813
(refined)	9,745	15,878	13,614
Italy	10,728	...	...
Germany, W.	20,371	...	...
Netherlands	2,271	...	...
Norway	109	334	...
Sweden	2,422	4,692	...
Switzerland	3,845	3,030	...
U. K. (l.t.)	32,804	38,853	43,146
India (blister-ref., l.t.)*	5,215	...	...

EXPORTS

U. S. (ore and unref., s.t.)	941	736	1,223
(ref., s.t.)	17,836	39,620	29,933
Canada (ref., s.t.)	19,130	18,630	...
Finland‡	110	51	...
Germany, W.	4,163	...	...
Norway	921	1,858	...
Sweden	1,505	737	...
U. K. (l.t.)	3,667	4,442	5,408
Turkey†	2,000	...	...
No. Rhodesia (ref. & blist., l.t.)*	33,778	34,381	28,990

† Includes copper alloys.
‡ Includes old.
‡‡ Copper wire bars and ingot bars 99% and copper ingots 97%.
* British Bureau of Non-Ferrous Metal Statistics.

U. K. Copper Exports

(British Bureau of Non-Ferrous Metal Statistics)

(In tons of 2,240 lbs.)

	Jan.-Dec. 1955	Jan.-Dec. 1956	Jan. 1957
(Gross Weight)			
Copper, unwrought, ingots, blocks, slabs, bars, etc.	15,392	32,616	5,408
Plates, sheets, rods, etc.	17,484	19,148	2,664
Wire (including uninsulated electric wire)	31,454	57,297	7,058
Tubes	6,643	10,520	849
Other copper worked (incl. pipe fittings)	1,343	1,494	190
Total	72,316	121,075	16,169

Canada's Nickel Exports

(Dominion Bureau of Statistics)

(Refined, in oxides, matte, etc.)
(In Tons)

	1955	1956	1957
January	14,421	15,121	14,259
February	13,915	13,940	...
March	13,564	16,219	...
April	16,083	14,448	...
May	14,761	14,729	...
June	16,296	16,403	...
July	13,929	11,079	...
August	14,861	18,470	...
September	14,638	13,849	...
October	13,589	12,800	...
November	13,073	14,084	...
December	14,749	15,694	...
Year	173,879	176,837	...

French Copper Imports

(A.B.M.S.)
(In metric tons)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore (gross weight)	...	161	...
Algeria	...	161	...
Crude copper for refining (blister,			
Belgian Congo	813	1	813
black & cement)	813	1	813
Refined	9,745	15,878	13,614
United States	1,765	3,152	3,469
Canada	628	1,134	379
Chile	...	292	15
Belgium	4,032	4,162	5,013
Germany (West)	404	1,444	1,021
Norway	219	60	203
Sweden	...	457	102
United Kingdom	86	602	356
Belgian Congo	1,717	3,503	1,611
Union of S. Africa	...	5	...
Rhodesia-Nyassaland	894	1,066	1,445
Other countries	...	1	...

French Zinc Imports

(A.B.M.S.)
(In metric tons)

	Nov. 1956	Dec. 1956	Jan. 1957
Ore (gross weight)	24,425	12,458	30,087
Canada	...	...	1,000
Peru	2,020	537	...
Belgium	278	...	...
Finland	2,750	...	...
Germany (West)	21	...	...
Greece	1,051	530	1,362
Italy	1,028	545	5,964
Spain	1,889	3,130	3,176
Yugoslavia	...	2,000	...
Algeria	3,938	1,540	6,932
Morocco	7,642	4,176	10,869
Tunisia	...	...	784
Australia	3,808	...	...
Slabs, bars, blocks, etc.	245	1,071	532
Mexico	25	24	...
Belgium	60	997	431
Italy	60	...	...
Russia	...	50	51
United Kingdom	...	...	50
Algeria	50	...	...
China	50	...	...

French Metal Exports

(American Bureau of Metal Statistics)
(In Metric Tons)

	Nov. 1956	Dec. 1956	Jan. 1957
Lead			
Ore (gross weight)	23	16	69
Pig lead	49	142	81
Switzerland	40	130	80
Egypt	...	...	...
Other countries	9	12	1
Antimonial lead	18	56	34
Zinc			
Slabs, bars, blocks, etc.	...	52	56

IT PAYS
to
ADVERTISE
in the
DAILY METAL REPORTER

Nonferrous Castings

MONTHLY SHIPMENTS, BY TYPE OF METAL

(Bureau of Census — Thousands of Pounds)

	Aluminum	Copper	Magnesium	Zinc	Lead Die
1951 Total	515,131	1,197,443	30,825	487.996	25,936
1952 Total	518,979	1,009,910	34,857	408,353	20,941
1953 Total	658,022	990,496	34,517	521,253	20,444
1954 Total	607,764	834,557	25,572	474,741	18,396
1955					
July	55,033	65,816	1,920	47,928	1,684
August	64,864	87,206	2,176	62,677	1,904
September	67,170	89,600	2,478	62,030	1,924
October	72,197	91,192	2,302	71,689	1,789
November	75,065	90,345	2,325	75,099	1,896
December	75,275	88,287	2,255	70,950	1,817
Total	833,058	1,011,748	27,892	781,254	21,045
1956					
January	74,152	89,767	2,959	68,050	1,598
February	73,096	91,706	2,977	66,584	1,636
March	73,785	96,085	3,046	65,760	1,644
April	67,880	90,679	3,140	58,274	1,910
May	65,786	89,188	3,021	52,205	1,919
June	58,189	78,921	2,949	47,775	1,883
July	52,955	60,926	2,810	42,227	1,551
August	61,507	77,619	3,059	52,321	2,112
September	62,503	72,109	3,079	46,340	1,004
October	74,209	81,049	3,442	65,450	2,206
November	69,741	72,866	2,892	64,972	1,788
December	67,333	65,198	2,794	58,111	1,483
Total	801,136	966,473	36,168	88,069	20,734

Copper Castings Shipments

BY TYPE OF CASTING

(Bureau of Census) (Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1951 Total	1,197,443	1,075,437	69,883	12,516	39,607
1952 Total	1,009,910	910,862	63,865	8,259	26,924
1953 Total	990,496	888,369	61,316	10,077	30,734
1954 Total	834,557	751,804	48,849	6,480	27,394
1955					
June	90,476	80,869	5,840	739	3,028
July	65,816	59,138	3,998	691	1,989
August	87,206	77,721	5,322	844	2,413
September	89,600	80,481	5,603	692	2,824
October	91,192	82,958	4,513	727	2,994
November	90,345	80,934	5,807	743	2,861
December	88,287	78,327	6,368	713	2,879
Total	1,011,748	907,852	63,041	8,541	31,408
1956					
January	89,767	80,116	6,135	799	2,717
February	91,706	82,244	5,888	727	2,847
March	96,085	85,894	6,299	782	3,110
April	90,679	81,333	5,835	722	2,789
May	89,188	80,155	5,398	751	2,854
June	78,921	70,260	5,052	755	2,854
July	60,926	55,027	3,193	506	2,200
August	77,619	70,479	3,805	904	2,431
September	72,109	64,887	3,930	929	2,363
October	81,049	73,058	4,104	1,120	2,767
November	72,866	65,022	4,114	1,057	2,673
December	65,198	57,929	3,769	971	2,529
Total	966,113	866,404	57,522	10,023	32,134

Nickel Averages

Electro, cathode sheets, 99.00%, f.o.b. refinery, duty included

(Cents per pound)

	1954	1955	1956	1957
Jan.	60.00	64.50	64.50	74.00
Feb.	60.00	64.50	64.50	74.00
Mar.	60.00	64.50	64.50	74.00
Apr.	60.00	64.50	64.50	....
May	60.00	64.50	64.50	....
June	60.00	64.50	64.50	....
July	60.00	64.50	64.50	....
Aug.	60.00	64.50	64.50	....
Sept.	60.00	64.50	64.50	....
Oct.	60.00	64.50	64.50	....
Nov.	60.98	64.50	64.50	....
Dec.	64.50	64.50	72.48	....
Av.	60.46	64.50	65.165	....

Platinum Averages

N. Y. MONTHLY QUOTATIONS

(Dollars per Troy Ounce)

	1954	1955	1956	1957
Jan.	91.40	81.00	106.30	101.92
Feb.	91.00	78.16	104.34	98.59
Mar.	87.88	78.00	104.23	93.50
Apr.	85.50	77.94	103.92	....
May	85.50	77.50	105.23	....
June	85.50	78.33	106.50	....
July	85.50	81.78	106.50	....
Aug.	85.00	84.59	105.76	....
Sept.	85.50	91.96	105.50	....
Oct.	83.62	94.60	104.85	....
Nov.	81.07	103.11	104.50	....
Dec.	80.64	106.58	104.50	....
Av.	85.72	86.12	105.18	....

Spot Straits Tin

(Straits, Open Market, N. Y.)

Monthly Average Prices

	1954	1955	1956	1957
Jan.	85.125	87.268	105.036	101.511
Feb.	85.16	90.836	100.803	101.132
Mar.	92.457	91.161	100.786	99.643
Apr.	96.298	91.48	99.268	....
May	93.51	91.41	96.994	....
June	94.24	93.68	94.589	....
July	96.55	97.08	96.143	....
Aug.	93.381	96.521	99.049	....
Sept.	93.536	96.607	103.809	....
Oct.	93.225	96.20	106.023	....
Nov.	91.176	97.987	110.921	....
Dec.	88.571	108.02	104.268	....
Aver.	91.935	94.85	101.474	....

Prompt Tin Prices

(Straits, Open Market, N. Y.)

Monthly Average Prices

(Cents per pound)

	1954	1955	1956	1957
Jan.	84.84	87.628	104.768	101.347
Feb.	85.04	90.75	100.586	100.257
Mar.	91.24	91.065	100.524	99.476
Apr.	96.238	91.41	99.145	....
May	93.51	91.38	96.853	....
June	94.24	93.64	94.488	....
July	96.55	96.825	96.131	....
Aug.	93.381	96.456	98.924	....
Sept.	93.536	96.256	103.559	....
Oct.	93.00	96.075	105.716	....
Nov.	91.099	97.882	110.329	....
Dec.	88.571	107.75	104.00	....
Av.	91.77	94.73	101.252	....

Quicksilver Averages

N. Y. Monthly Averages

Virgin, Dollars per 76-lb. Flask

	1954	1955	1956	1957
Jan.	189.60	324.68	277.88	256.00
Feb.	190.00	324.68	270.29	256.00
Mar.	201.63	322.61	261.40	256.00
Apr.	221.36	318.14	267.22	....
May	251.20	306.62	267.675	....
June	273.46	286.98	260.69	....
July	287.40	268.22	256.06	....
Aug.	290.71	255.18	256.00	....
Sept.	314.08	263.70	256.00	....
Oct.	329.50	279.02	255.92	....
Nov.	321.17	282.50	255.13	....
Dec.	319.96	282.27	256.00	....
Av.	265.84	292.90	261.71	....

Primary Aluminum Output, Shipments and Stocks

(U. S. Department of Interior)

	Stocks beginning of month short tons	Production short tons	—Sold or Used— Short tons	Value f. o. b. plant	Stocks end of month short tons
1956					
May	14,112	150,800	153,014	73,940,389	11,898
June	11,898	145,729	140,225	67,775,239	17,399
July	17,399	151,624	134,089	64,858,158	34,925
August	34,925	92,406	90,614	44,519,556	36,717
September	36,717	132,316	121,854	60,104,570	47,179
October	47,179	149,125	134,014	67,126,363	62,290
November	62,290	145,081	119,787	60,252,640	87,584
December	87,584	148,391	133,186	67,039,743	102,789
Total	.....	1,679,247	1,591,478	.....	.....
1957					
January	102,496	147,029	104,394	52,418,766	145,131

Aluminum Wrought Products

PRODUCERS' MONTHLY NET SHIPMENTS

(Bureau of Census — Thousands of Pounds)

	Total	Plate, Sheet, & Strip	Rolled Structural Shapes, Rod, Bar & Wire	Extruded Shapes Tube Blooms & Tubing	Powder, Flake, & Paste
1954 Total	2,088,439	1,165,090	357,229	518,070	46,255
1955					
July	210,222	113,305	27,070	62,918	2,379
August	250,036	141,400	29,413	67,904	3,039
September	244,135	134,240	32,973	67,407	2,926
October	248,806	138,328	30,554	71,456	2,926
November	245,526	137,109	31,656	67,798	2,658
December	242,993	138,592	31,802	64,159	1,837
Total	2,805,500	1,542,368	365,391	812,311	35,854
1956					
January	251,639	142,049	34,008	67,499	2,118
February	240,999	134,077	33,727	65,261	1,901
March	**232,767**	**128,432**	**30,972**	**63,482**	**1,947**
April	260,610	143,859	37,971	69,639	3,316
May	264,378	147,613	39,900	68,106	2,215
June	240,415	132,510	33,438	65,600	2,119
July	247,895	139,571	35,346	64,249	2,736
August	248,457	141,400	32,413	66,315	3,039
September	217,425	117,074	32,154	59,462	2,953
October	252,289	136,546	25,385	73,363	2,255
November	218,272	114,618	31,501	64,197	1,716
December	194,822	99,851	31,787	55,225	1,702
Total	2,870,101	1,577,601	398,602	782,398	28,017
1957					
January	235,635	125,864	36,305	64,821	1,970

Aluminum Castings Shipments

(Bureau of Census)

BY TYPE OF CASTING

(Thousands of Pounds)

	Total	Sand	Permanent Mold	Die	All Other
1951 Total	515,131	193,378	160,011	151,465	10,277
1952 Total	518,979	194,616	146,883	169,732	7,748
1953 Total	658,022	214,553	200,025	239,330	4,114
1954 Total	609,066	155,738	213,968	232,726	6,800
1955					
May	71,691	14,23[illegible]	25,597	31,243	616
June	68,473	14,920	24,682	27,939	932
July	55,033	11,716	21,006	21,656	655
August	64,864	14,916	22,267	27,004	576
September	67,170	14,870	23,075	28,532	693
October	72,197	14,485	25,135	31,741	836
November	75,065	14,327	26,267	33,852	619
December	75,275	15,291	25,031	34,347	606
1955 Total	833,058	171,757	298,115	354,804	8,282
1956					
January	74,152	15,861	24,528	33,253	510
February	73,096	15,560	23,963	32,949	624
March	**73,785**	**16,597**	**22,816**	**33,965**	**407**
April	67,880	14,732	20,718	31,782	648
May	65,786	15,600	19,669	29,814	703
June	58,189	13,448	19,067	25,027	647
July	52,955	12,398	16,388	23,491	678
August	61,407	13,100	18,067	29,553	687
September	62,503	12,354	17,855	31,640	654
October	74,209	14,389	21,120	37,782	918
November	69,741	14,333	20,673	33,929	806
December	67,333	13,391	20,557	32,923	454
1956 Total	801,036	171,763	245,421	376,108	7,736

Virgin Aluminum

Virgin 99% Delivered Monthly Average Prices

(Cents per pound)

	1954	1955	1956	1957
Jan.	21.50	22.90	24.40	27.10
Feb.	21.50	23.20	24.40	27.10
Mar.	21.50	23.20	24.60	27.10
Apr.	21.50	23.20	25.90	....
May	21.50	23.20	25.90	....
June	21.50	23.20	25.90	....
July	21.50	23.20	25.90	....
Aug.	22.12	24.26	26.70	....
Sept.	22.20	24.40	27.10	....
Oct.	22.20	24.40	27.10	....
Nov.	22.20	24.40	27.10	....
Dec.	22.20	24.40	27.10	....
Av.	21.785	23.655	26.008	....

Magnesium Wrought Products Shipments

(Bureau of Census)

(Thousands of Pounds)

	1954	1955	1956	1957
Jan.	972	1,776	2,188	1,065
Feb.	1,136	1,648	1,901	1,261
Mar.	1,136	1,947	1,946	....
Apr.	892	1,756	2,279	....
May	1,129	1,836	2,462	....
June	1,312	1,686	2,302	....
July	1,032	1,437	2,002	....
Aug.	1,111	1,742	2,523	....
Sept.	1,183	2,159	1,988	....
Oct.	1,002	1,667	861	....
Nov.	1,243	1,954	2,141	....
Dec.	1,673	1,577	2,452	....
Total	13,743	21,186	24,975	....

Cadmium Averages

N. Y. Monthly Averages

Cents per lb. in ton lots

	1954	1955	1956	1957
Jan.	200.00	170.00	170.00	170.00
Feb.	170.00	170.00	170.00	170.00
Mar.	170.00	170.00	170.00	170.00
Apr.	170.00	170.00	170.00	.....
May	170.00	170.00	170.00	.....
June	170.00	170.00	170.00	.....
July	170.00	170.00	170.00	.....
Aug.	170.00	170.00	170.00	.....
Sept.	170.00	170.00	170.00	.....
Oct.	170.00	170.00	170.00	.....
Nov.	170.00	170.00	170.00	.....
Dec.	170.00	170.00	170.00	.....
Av.	172.50	170.00	170.00	.....

Steel Ingot Production

(American Iron and Steel Institute)

Period	Estimated Production — OPEN HEARTH Net tons	Per cent of capacity	BESSEMER Net tons	Per cent of capacity	All Companies ELECTRIC Net tons	Per cent of capacity	TOTAL Net tons	Per cent of capacity	Calculated weekly production, all companies (net tons)
1952 Total	82,846,439	87.2	3,523,677	65.5	6,797,923	82.6	93,168,039	85.8	1,782,097
1953 Total	100,473,823	97.9	3,855,705	83.2	7,280,191	71.1	111,609,719	94.9	2,140,578
1954 Total	80,827,494	78.6	2,648,104	68.2	5,436,054	52.0	88,911,652	71.0	1,693,741
1955									
December	9,390,000	100.5	292,000	72.0	786,000	85.8	10,468,000	98.1	2,368,000
Total	105,342,886	95.6	3,319,083	69.3	8,335,592	77.2	117,000,566	93.0	2,243,969
1956									
January	9,676,151	101.4	323,235	79.5	828,845	86.6	10,828,231	99.3	2,444,296
February	9,048,064	101.3	296,543	78.0	779,388	87.1	10,118,995	99.2	2,444,202
March	9,795,263	102.7	310,060	76.3	819,465	85.7	10,924,788	100.2	2,466,092
April	9,437,945	102.2	306,388	77.9	779,452	84.2	10,523,785	99.7	2,455,097
May	9,370,167	98.2	297,990	73.3	822,219	86.0	10,490,376	96.2	2,368,031
June	8,665,044	93.9	282,846	71.9	773,546	83.6	9,721,436	92.1	2,266,069
July	1,330,151	13.9	.....	...	292,012	30.5	1,622,163	14.9	367,005
August	7,213,274	75.6	189,564	46.6	719,759	75.3	8,122,597	74.5	1,833,543
September	9,342,796	101.2	286,978	72.9	792,885	85.7	10,422,659	98.8	2,435,201
October	9,841,002	103.2	330,101	81.2	877,410	91.8	11,048,513	101.3	2,575,411
November	9,430,248	102.2	295,827	72.5	829,925	89.6	10,555,500	100.0	2,460,490
December	9,695,919	101.6	308,465	75.9	833,161	87.1	10,837,545	99.4	2,451,933
Total	102,840,585	91.6	3,227,997	67.4	9,147,567	81.2	115,216,149	89.8	2,203,828
1957									
January	9,829,691	99.0	294,839	77.1	884,232	86.5	11,008,762	97.1	2,485,048
February	8,898,671	99.2	277,682	80.4	810,853	87.8	9,987,206	97.6	2,496,801
March	9,443,000	95.1	275,000	71.9	873,000	85.4	10,591,000	93.4	2,391,000

Blast Furnace Output

(American Iron and Steel Institute)

	net tons — Pig Iron	Ferro-manganese & Spiegel	Total	% Capacity
1947				
Ttl. Yr.	58,507,169	702,561	59,209,730	90.1
1948				
Ttl. Yr.	60,135,941	712,899	60,848,840	90.2
1949				
Ttl. Yr.	53,613,779	592,564	54,206,343	76.9
1950				
Ttl. Yr.	64,810,272	673,896	65,484,168	91.5
1951				
Ttl. Yr.	70,487,380	745,381	71,232,761	98.3
1952				
Ttl. Yr.	61,528,665	629,926	62,158,591	84.2
1953				
Total	74,987,721	855,038	75,842,759	95.5
1954				
Oct.	4,937,436	46,244	4,983,680	71.5
Nov.	5,204,446	52,454	5,256,900	77.9
Dec.	5,526,720	59,793	5,586,513	80.4
Total	58,119,382	568,735	58,688,117	71.6
1955				
Jan.	5,729,404	55,249	5,784,653	81.1
Feb.	5,394,585	48,182	5,442,767	84.5
Mar.	6,406,902	57,049	6,463,951	90.6
Apr.	6,329,927	54,712	6,384,639	92.4
May	6,753,236	51,699	6,804,935	95.4
June	6,495,050	48,735	6,543,878	94.7
July	6,329,393	61,166	6,390,559	89.8
Aug.	6,329,580	71,902	6,401,482	92.5
Sept.	6,653,678	49,783	6,703,366	97.3
Oct.	6,905,280	59,993	6,965,273	97.6
Nov.	6,636,649	62,341	6,698,990	97.0
Dec.	6,887,667	65,849	6,953,516	97.7
Total	77,114,073	868,753	77,800,831	92.7
1956				
Jan.	6,985,945	63,619	7,049,564	97.1
Feb.	6,539,199	63,618	6,602,817	97.2
Mar.	7,083,877	65,566	7,149,443	98.5
Apr.	6,860,833	63,760	6,924,593	98.6
May	6,873,102	47,840	6,920,942	95.3
June	6,887,608	46,981	6,434,589	91.6
July	1,089,518	17,491	1,107,009	15.2
Aug.	5,100,669	41,548	5,142,217	70.3
Sept.	6,873,064	59,584	6,932,648	98.7
Oct.	7,245,650	69,909	7,315,559	100.8
Nov.	6,977,457	58,614	7,036,091	100.1
Dec.	7,268,743	65,841	7,334,584	101.0
Total	75,301,134	664,341	75,965,475	88.9
1957				
Jan.	6,985,945	63,619	7,049,564	97.1

Steel Castings Shipments

(Bureau of Census)

	(Short Tons) Total	For Sale	For Own Use
1950	1,461,667	929,192	374,217
1951	2,101,604	1,507,413	594,191
1952	1,925,116	1,476,352	448,767
1953	1,829,277	1,290,016	431,330
1954			
Nov.	87,659	64,812	22,847
Dec.	93,547	69,843	23,704
Total	1,184,096	880,158	303,938
1955			
Jan.	98,238	75,044	23,194
Feb.	106,430	80,729	25,701
Mar.	127,460	98,926	28,534
Apr.	120,053	92,237	27,816
May	122,465	92,713	29,752
June	133,887	102,457	31,430
July	97,875	71,170	26,705
Aug.	126,406	96,290	30,116
Sept.	140,843	107,622	33,221
Oct.	145,674	110,409	35,265
Nov.	152,381	116,908	35,473
Dec.	158,982	122,201	36,781
Total	1,530,694	1,166,706	363,988
1956			
Jan.	158,618	123,343	35,275
Feb.	165,398	128,598	36,800
Mar.	170,045	130,839	39,206
Apr.	163,708	125,015	38,693
May	178,227	142,025	36,202
June	164,661	129,147	35,514
July	117,984	96,350	21,634
Aug.	159,831	127,001	32,830
Sept.	155,046	121,705	33,341
Oct.	175,630	135,798	39,832
Nov.	164,114	126,900	37,214
Dec.	158,725	125,569	33,156
Total	1,931,987	1,512,290	416,697
1957			
Jan.	169,240	133,826	35,414

GALVANIZED SHEET SHIPMENTS

(American Iron & Steel Institute)

(Net Tons)

	1954	1955	1956	1957
Jan.	169,086	211,101	269,464	235,902
Feb.	167,433	199,408	272,997	205,048
Mar.	180,198	238,649	291,193	....
Apr.	203,312	239,001	266,728	....
May	201,671	235,962	272,741	....
June	200,456	246,940	279,058	....
July	214,349	205,211	*	....
Aug	207,113	241,863	276,048	....
Sept.	209,765	269,020	256,803	....
Oct.	209,498	260,010	278,637	....
Nov.	195,190	255,692	255,135	....
Dec.	205,561	261,640	239,173	....
Total	2,362,632	2,864,497	2,957,991	....

* Combined with August figures.

SHIPMENTS OF TIN-TERNE PLATE

(American Iron & Steel Institute)

(Net Tons)

	—Hot Dipped— 1956	1957	—Electrolytic— 1956	1957
Jan.	81,634	88,174	402,627	492,502
Feb.	77,877	63,040	404,193	407,008
Mar.	133,257		598,129	....
Apr.	138,556		554,575	....
May	70,282		354,204	....
June	84,371		466,060	....
July	*		*	....
Aug.	81,005		408,903	....
Sept.	72,400		396,588	....
Oct.	92,394		415,451	....
Nov.	70,510		325,408	....
Dec.	68,385		288,896	....
Total	950,070		4,615,068	....

* Combined with August figures.

Steel Ingot Operations

(Percentage of Capacity as Reported by American Iron & Steel Institute)

Week Beginning	1954	1955	1956	1957
Jan. 7	75.4	81.2	97.6	98.4
Jan. 14	74.3	83.2	98.6	96.4
Jan. 21	74.1	83.2	99.0	96.6
Jan. 28	75.6	85.0	100.4	97.6
Feb. 4	74.4	85.4	99.3	97.1
Feb. 11	74.4	86.8	99.1	97.7
Feb. 18	74.6	89.1	98.8	97.8
Feb. 25	73.6	90.8	98.8	96.0
Mar. 4	70.7	91.9	99.9	94.2
Mar. 11	69.3	92.9	100.0	93.8
Mar. 18	67.6	94.2	100.6	93.5
Mar. 25	68.1	93.7	99.5	92.4
Apr. 1	69.1	94.4	99.6	90.6
Apr. 8	68.0	95.3	97.7	90.3
Apr. 15	68.0	94.6	100.9	89.7
Apr. 22	68.6	94.6	100.2	....
Apr. 29	68.7	95.6	100.5	....
May 6	69.4	96.6	96.4	....
May 13	70.9	97.2	95.2	....
May 20	71.8	96.9	95.3	....
May 27	71.2	96.4	97.3	....
June 3	70.2	95.8	96.3	....
June 10	73.2	94.7	96.7	....
June 17	72.3	96.0	93.4	....
June 24	72.1	95.0	93.0	....
July 1	65.8	71.1	84.9	....
July 8	60.0	85.9	12.3	....
July 15	64.3	91.2	12.9	....
July 22	65.3	91.0	14.6	....
July 29	64.2	90.7	17.0	....
Aug. 5	64.0	86.9	16.9	....
Aug. 12	64.0	89.4	57.5	....
Aug. 19	61.8	90.2	87.5	....
Aug. 26	63.5	90.6	95.8	....
Sept. 2	64.0	93.4	97.0	....
Sept. 9	63.0	93.8	98.7	....
Sept. 16	66.3	95.7	100.6	....
Sept. 23	68.7	96.1	100.6	....
Sept. 30	70.4	97.0	101.6	....
Oct. 7	71.0	96.7	101.8	....
Oct. 14	72.8	96.5	100.9	....
Oct. 21	73.6	98.9	101.4	....
Oct. 28	74.5	100.0	101.2	....
Nov. 4	76.4	99.4	101.3	....
Nov. 11	77.2	99.6	100.6	....
Nov. 18	79.3	99.2	100.2	....
Nov. 25	80.3	100.1	100.1	....
Dec. 2	81.4	97.6	101.1	....
Dec. 9	82.5	100.1	101.3	....
Dec. 16	81.5	100.3	102.0	....
Dec. 23	72.4	96.9	94.3	....
Dec. 30	77.6	95.7	97.3	....

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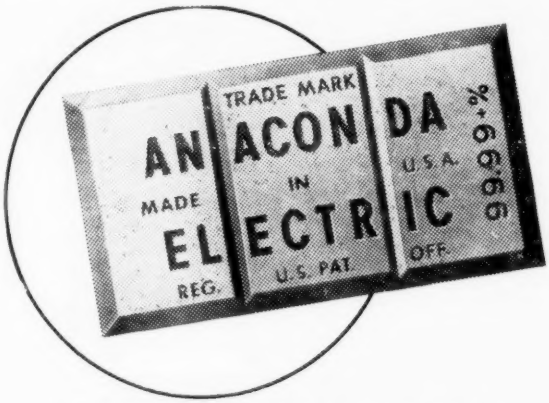

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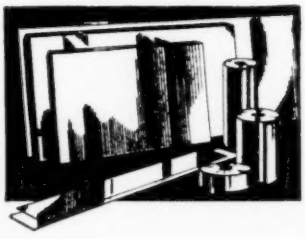

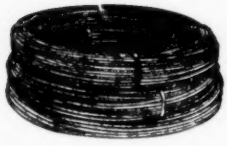

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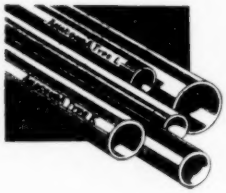

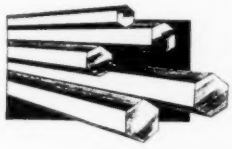

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Cedar Rapids, Iowa
Charlotte 2, N. C.
*Chicago 39, Ill.
Cincinnati 2, Ohio
*Cleveland 14, Ohio
Columbus 15, Ohio
*Dallas 25, Texas
Denver 2, Colo.
Detroit 31, Mich.
Houston 2, Texas
Kenosha, Wis.
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*Milwaukee 4, Wis.
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New York 16, N. Y.
*Philadelphia 22, Pa.
Pittsburgh 19, Pa.
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